CONTENTS

General information **3**
Technical information **4**
Safety information **9**
Installation **12**
Adjustments **30**
Use and functioning **33**
Ordinary maintenance **55**
Failures, causes and solutions **57**
Parts replacements **65**

GB

ANALYTICAL CONTENTS

A
Access to the menus., 34
Adjusting the cutting height, 30
Adjustment reminders, 30
Automatic cycle start, 44

B
Batteries replacement, 65
Battery installation and connection, 26
Blade installation, 26

D
Display visualisation in work phase, 49

E
Enter password, 48
Equipment general description, 4
Equipment installation planning, 13

I
Identification of manufacturer and appliance, 4
Installation of recharging station and transmitter-power supplier group , 23

L
"LANGUAGE AND DATE/TIME FORMAT" – programming mode, 44

M
Maintenance reminders, 55
Manual startup and stop of robot (in closed areas), 46

P
Packaging and unpacking, 12
Parts replacement reminders, 65
Perimeter wire installation, 19
Preparation and delimitation of work areas (main and secondary) , 16
Programmed maintenance intervals chart, 55
Prolonged inactivity and service restart, 49
Purpose of this manual, 3

To order, please visit:
http://www.lawnbotts.com

C141501800.fm

R
Rain sensor adjustment, 32
Recharge batteries for extended inactivity, 50
Recharge batteries on first use , 29
Recommendations for use, 33, 54
Replace the blade, 69
Requesting technical assistance, 4
Robot automatic stop, 45
Robot cleaning, 56
Robot controls description, 33
Robot disposal, 69
Robot safety stop, 45
Robot start without perimeter wire, 47

S
Safety for man and the environment during disposal, 11
Safety rules, 9
Safety signals, 11
"SECONDARY AREAS" – programming mode, 39
"SECURITY" – programming mode, 41
Setting for rapid robot re-entry into the recharging station , 22
"SETTINGS" – programming mode, 35

T
Technical data, 7
"TIME" – programming mode, 37
Troubleshooting, 57

W
"WORK MODE " – programming mode, 43

Reproduction, even partial, of this document without written permission by the manufacturer is forbidden. The manufacturer assumes a policy of continual improvement and reserves the right to modify this document without prior notice on condition that modifications do not constitute safety risks.
© 2005 - Text, illustrations and page setting by: IDM experts in technical communications - Forlì - Texts may be partially or totally reproduced if the author is cited.

PURPOSE OF THIS MANUAL

– The constructor has produced this manual, which forms an integral part of the appliance, to provide the necessary information for those authorised to interact with it during its working life.

– Personnel working with the machine must adopt correct working practices and must also carefully read and strictly follow all the instructions given in this manual.

– The constructor supplies this information in its own language (Italian), but it may be translated into other languages to meet legal and/or commercial requirements.

– Some time dedicated to reading such information will allow us to avoid any risks to people's health and security, as well as economic damages.

– Keep this manual in a clearly identified safe place throughout the working life of the appliance, so that it will always be available when required for consultation.

– Some information and illustrations set out in the present manual may not perfectly correspond with the one in your possession, but that does not compromise its validity.

– The constructor reserves the right to make changes without any obligation to provide any prior notice.

– Some symbols, whose meaning is described as follows, have been adopted throughout this manual to identify particularly important sections of text or data.

Danger - Attention

The symbol indicates situations involving great danger which, if overlooked, could put people's health and safety at risk.

Warning - Caution

The symbol indicates that the necessary procedures must be adopted to avoid putting people's health and safety at risk, or sustaining economic losses.

C141501800.fm

Important

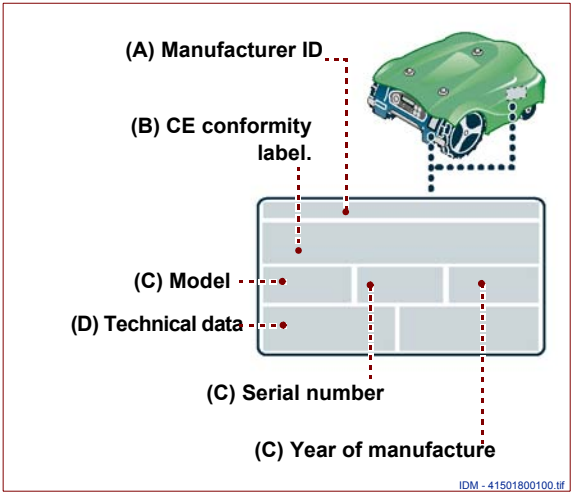
The symbol indicates particularly important technical information which must not be overlooked.

IDENTIFICATION OF MANUFACTURER AND APPLIANCE

The nameplate shown here is fitted directly to the appliance. It contains references and all essential information for operating safety.

A – Name of manufacturer
B – CE conformity label.
C – Model/Serial number /year of construction.
D – technical data

GB



REQUESTING TECHNICAL ASSISTANCE

For every need, please get in touch with the Technical Assistance Service or with one of the authorized service centres. For every technical service request, please indicate the data found on the identification plate, the approximate hours of use and the type of fault detected.

TECHNICAL INFORMATION

EQUIPMENT GENERAL DESCRIPTION

The appliance is a robot designed and built to automatically trim grass in gardens and house lawns in any time of the day.
It is small, compact, silent, waterproof and easy to transport.
On the basis of the different characteristics of the surfaces where the grass needs cutting, the robot can be programmed to work in several areas: a main area, and one or more secondary areas.

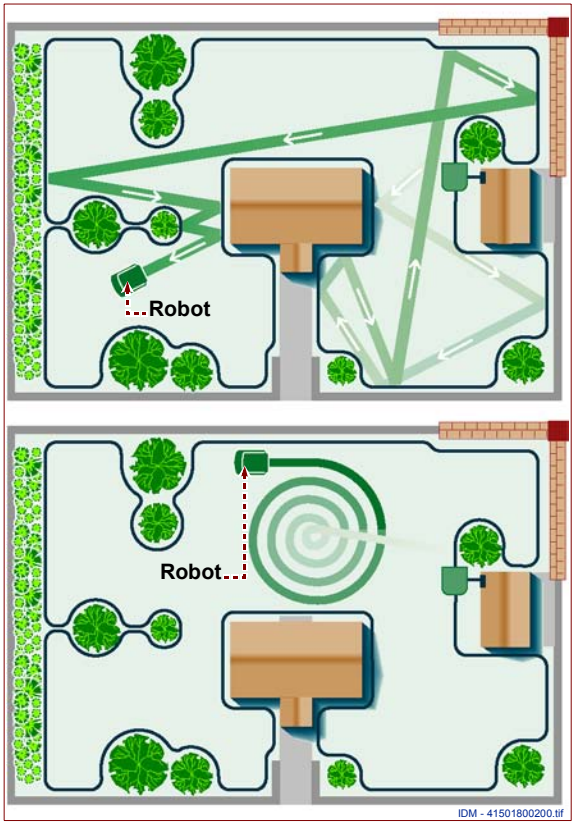
During its functioning the robot trims the area marked off by the perimeter wire and/or by barriers (fences, walls, etc.)
When the robot detects the perimter wire or meets an obstacle it changes trajectory in a random manner and starts again in a new direction.
According to its functioning principle ("random"), the robot carries out an automatic and complete trimming of the marked off lawn (see figure)

The lawn surface that the robot is able to trim depends on a series of factors.
– robot model and type of batteries installed
– area features (irregular perimeters, uneven surface, divided area, etc.)
– lawn features (type and height of grass, moisture, etc.)
– blade conditions (with efficient sharpening, without residues and deposits, etc)

Robot , produced in version L3BL, is equipped with two lithium batteries, which guarantee greater autonomy and supply enough energy to cut grass on a surface area up to 3500 m2.

To cut grass on a surface area up to 5000 m2, on request, robot can be fitted with four lithium batteries.

All models are equipped with a sensor which, when it rains, stops the blade and makes the robot return to its recharging station.



GB

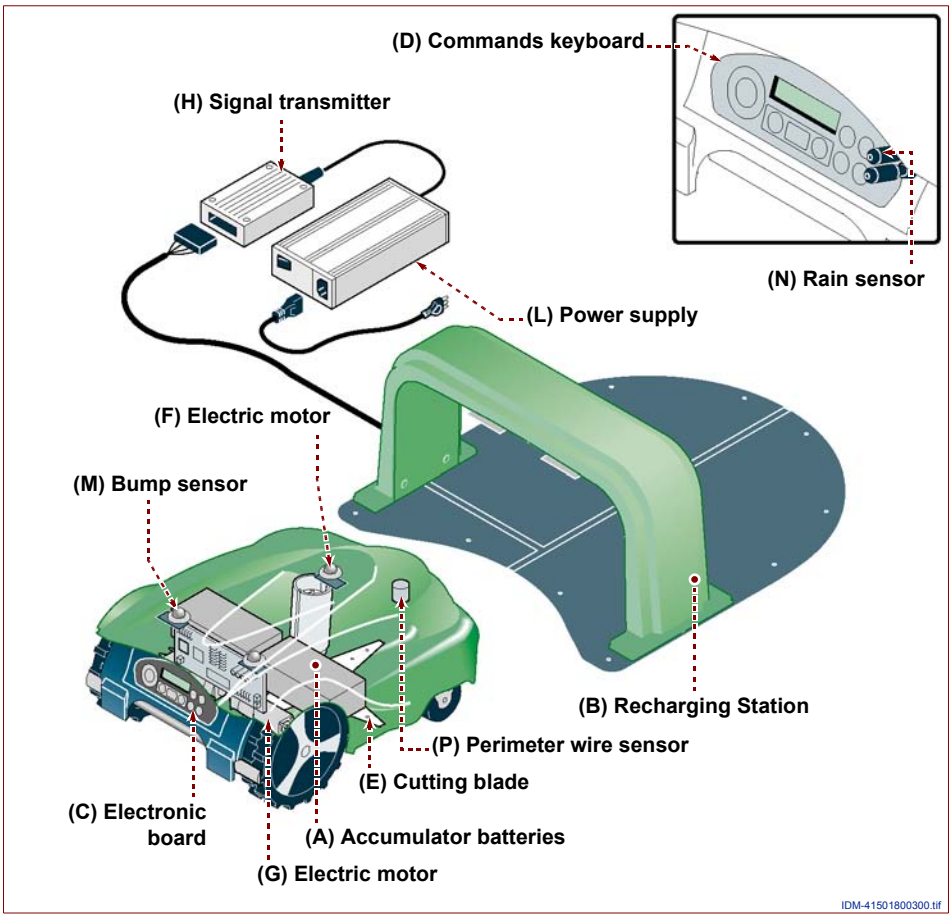
Upon request, the models can be equipped with an upgraded transmitter, electromagnetic interference filter and power supply safety box.

The robot has software installed (with "Bluetooth" connection) that lets you move and guide it using a cellphone.
To enable this function you will have to install the interface software on your phone, which can be requested directly from the robot reseller.
For the cellphone to interface with the software installed in the robot, the phone must have the requisites indicated in the specifications table.

Each robot is provided with a recognition password in order to impede its use should it be stolen.
When purchased, the password inserted by the manufacturer comprises four numbers (0000).
To customise the password see ""SECURITY" – programming mode" § "Password".

MAIN PARTS

A – Accumulator batteries: they energize the motors of the blade and of the wheel control system.
B – Recharging station: used to charge or keep the batteries charged **(A)**.
C – Electronic card: it checks the automatic functions of the robot.
D – Control keyboard: it is used to set and visualise the functioning modes of the robot.
E – Cutting blade: it trims the lawn.
F – Electric motor: it starts the cutting blade **(E)**.
G – Electric motor: one starts the right wheel transmission group while the other actions the left wheel group.
H – Transmitter: it transmits the signal to the perimeter wire.
L – Power supply unit: it energizes, at low tension, the battery power.



C141501800.fm

M – Bump detector: detects robot impact against an obstacle and enables a change of trajectory in a random manner.
N – Rain sensor: detects rain and enables the return of the robot to its charging station **(B)**.
P – Sensor: detects the perimeter wire and enables a change of robot trajectory in a random manner.

TECHNICAL DATA

Description		*Model* *L3BL*
Cutting blade 4	mm	360
Cutting speed	m/min	25
Cutting height (1)	mm	15-60
Maximum gradient of the surface to trim		27° on the basis of the conditions of the lawn
Electric motors	V	cc (24V)
Size (basexheightxdepth)	mm	650x490x280
Robot weight (without batteries)	kg	12,8
Ambient functioning temperature	Max	40°
Battery accumulator recharge type		
Battery accumulators (lithium)	V-A	29,3V - 4A
Maximum surface that can be trimmed		
Robot with two lithium batteries (25.2V-6A)	m^2	3500
Robot with four lithium batteries (25.2V-6A)	m^2	5000
Electric specifications		
Power supply unit (for lithium battery)		Class 1 (Vin 115-230 Vac 50Hz) Fuse 5x20 4A F (inside) 29,3 Vac Fuse 5x20 10A F (replaceable) Selector 115-230 Vac
Section perimeter wire (to lay underground)	mm	ø1,5

GB

C14150180O.fm

Description		Model
		L3BL
Perimeter wire maximum length (approximate, calculated according to a regular perimeter)	m	600
Fittings		
Sinusoidal perimeter signal (patented)		standard
Rain sensor		standard
Intelligent spiral		standard
Blade modulation (Smart)		standard
Trimmed lawn sensor - Auto-programming (patented)		standard
"Bluetooth" connectivity		standard
Alarm		standard
Safety system on blade		standard
Perimeter wire	m	200
Fixing nails	n°	200
Powered transmitter		on request
Electromagnetic interference filter		on request
Power supply safety box		on request
Battey charger kit (winter period or extended inactivity)		on request
Characteristics of cellphone		
"Bluetooth" connectivity Support for "Java 2 ME " applications (MIDP 1.0 or higher) Resolution of display 128x160 pixels (recommended)		

(1) On the basis of market requirements, in some countries the cut height is 25-70 mm.

SAFETY RULES

– During design and construction, the manufacturer has carefully considered the possible hazards and personal risks that may result from interaction with the machine. In addition to observing the specific laws in force, the manufacturer has adopted all "exemplary construction technique principles". The purpose of this information is to advise the users to use extreme caution to avoid risks. However, discretion is invaluable. Safety is also in the hands of all the operators who interact with the machine.

GB

– When using the robot for the first time, it is recommended to carefully read the whole manual and to be sure to have it completely understood, in particular all the information relating to safety.

– Carefully read all instructions in this manual and those applied directly to the machine, taking particular care to read and follow safety precautions. Time dedicated to reading these precautions can prevent regrettable accidents. It is always too late to remember what you should have done after an accident has happened.

– Perform lifting and handling observing the information found directly on the packaging, on the machine and in the instructions furnished by the manufacturer.

– Pay attention to the symbols that appear on all the safety labels. They are coded by colour and shape to enhance safety. Keep all safety labels legible and always respect the instructions they give.

– The lawn mower may be used only by those who know how to operate it after reading and understanding the instructions in this manual.

– The machine must be used only for the purposes provided for by the Manufacturer. An improper use of the machine can endanger people’s safety and lead to economic losses.

– Before using the lawn mower make sure that no objects are on the lawn (toys, tree branches, items of clothing, etc.).

– When the robot is on, to avoid dangerous situations, make sure there is no one (in particular children, the elderly or disabled people) or pets in the area it will be operating in. To avoid this risk, we recommend programming the activity of the robot to be executed at suitable times.

C14150l800.fm

– Do not place hands or feet under the machine when running especially in the wheel area.

– Never tamper with, avoid, remove or bypass installed safety devices. Such actions could lead to serious risk to personal health and safety.

– Keep the lawn mower in perfect operating conditions by performing the maintenance procedures outlined by the manufacturer. Good maintenance guarantees better performance and longer service life.

– Before maintenance and setting procedures are performed – also by the user, if possessing the necessary technical skills – disconnect the power supply. The user must in any case operate in full safety conditions, especially when working on the lower part of the lawn mower, following the procedures as illustrated by the manufacturer.

– Use personal protections as recommended by the manufacturer, especially the protective gloves when handling blades and cutting discs.

– Always remove the blade before replacing the batteries.

– In order not to irreversibly damage electric and electronic parts, do not wash the robot with water jets at a high pressure and do not plunge it partially or thoroughly in water, as it is not watertight.

– The operators performing repair interventions during the working life of the robot must have technical expertise, special abilities and experience, acquired and acknowledged in this specific sector. The lack of these requirements may cause damage to the safety and health of people.

– All operations, which must be carried out in the recharge base (optional), must be performed with the power supply plug disconnected.

– Replace deteriorated parts with originals to ensure functionality and the foreseen safety level.

– It is absolutely forbidden to use the robot in explosive and flammable environments.

SAFETY FOR MAN AND THE ENVIRONMENT DURING DISPOSAL

– Do not dispose of pollutant materials in the environment. Dispose of all such materials in compliance with applicable legislation.

– With reference to the WEEE directive (Waste of Electrical and Electronic Equipment), during dismantling, the user must separate the electrical and the electronic components and dispose them in the appropriate authorized collection centres or give them back as they are to the seller, when a new purchase is made.

– All the components, which must be separated and disposed of in a specific manner, are marked with a special mark.

– The unauthorized disposal of Waste of Electrical and Electronic Equipment (WEEE) is subject to fine according to sanctions regulated by the laws in force in the territory where the infraction has been verified.

– As implementation of the European directives (2002/95/CE, 2002/96/CE, 2003/108/CE) in the Italian territory, for example, a law decree (n. 151 dated July 25 2005) has been enacted, thus providing for an administrative fine of 2000÷5000 €.

Danger - Attention

The Waste of Electrical and Electronic Equipment may contain dangerous substances with potentially harmful effects on the environment and on people. It is recommended to correctly dispose them.

SAFETY SIGNALS

Danger signal: indicates that the user should not approach to the blades while the lawn mower is operating.

Safety signal: indicates that the user should carefully read the manual before operating the lawn mower.

C141501800.fm

PACKAGING AND UNPACKING

The machine is delivered suitably packaged. When unpacking, remove carefully and check component integrity.

All the necessary information for handling is found on the packaging.

Packaging content

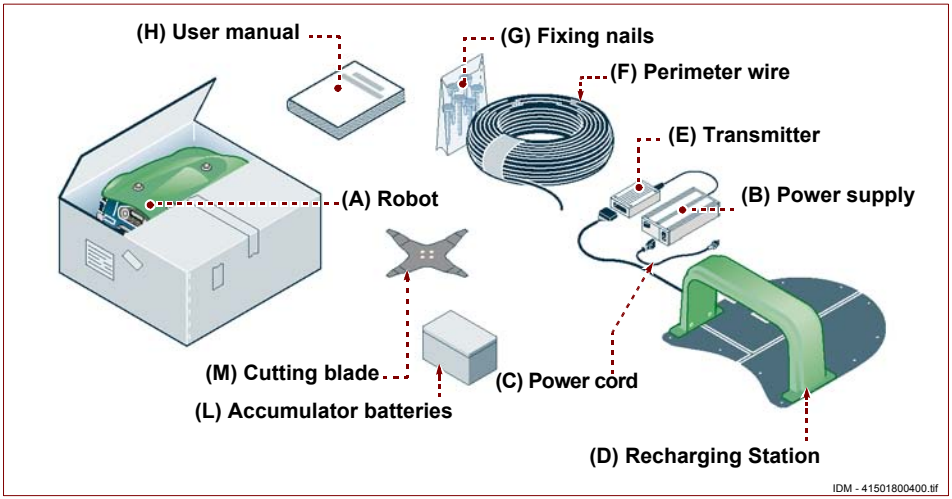
GB

A – **Robot**
B – **Power supply unit**
C – **Power supply cable**
D – **Recharging Station**
E – **Transmitter**
F – **Perimeter wire hank**
G – Nails (**G**) for wire fixing
H – **User manual**
L – **Lithium accumulator batteries**: The quantity of the batteries may vary on the basis of the purchase order.
M – **Blade**

Important

– The list includes only the components supplied with the equipment. Check the quantity and the integrity of any optional parts requested.

– Keep packaging material for subsequent use.

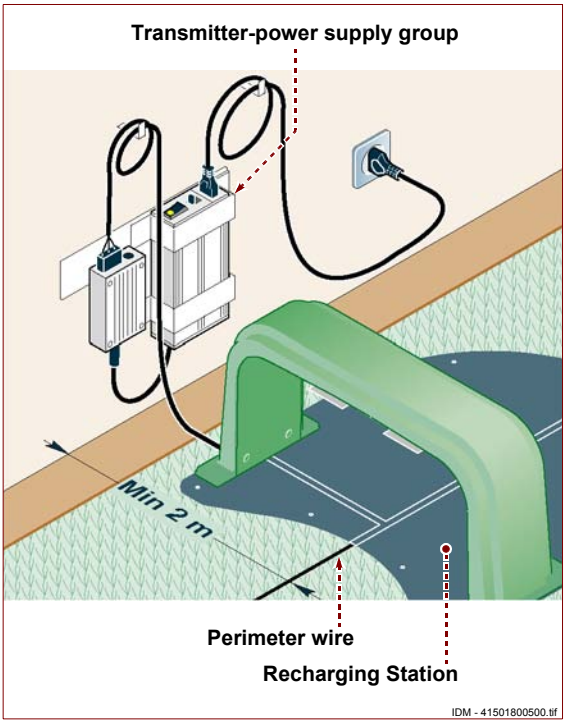


C141501800.fm

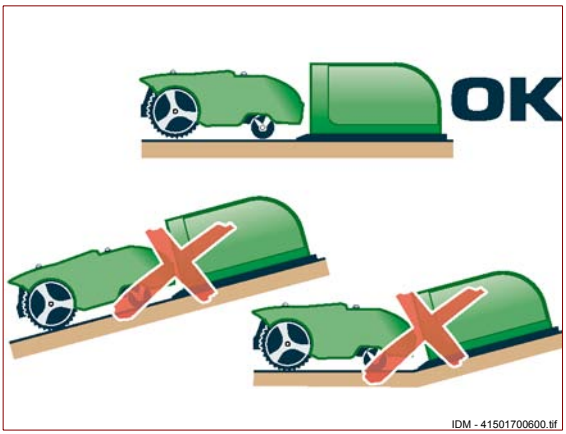
Robot installation does not involve interventions that are difficult to carry out, but requires a minimum of preliminary planning to define the best area to install the charging station, power supply-transmitter group and to lay out the perimeter wire.

Power supplier-transmitter group and recharging station installation area

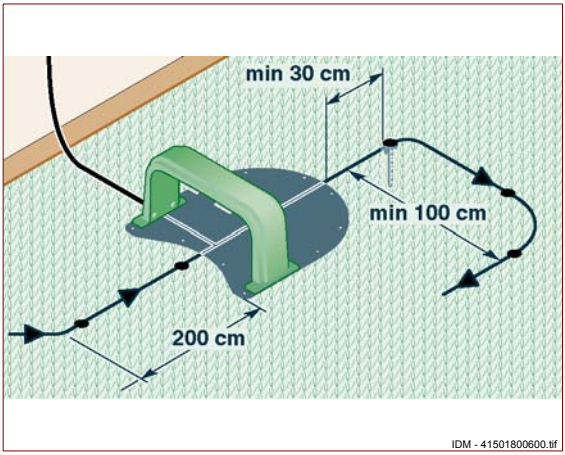
– Power supplier-transmitter group and recharging station must be installed inside the main work area and near to each other.



– The recharging station must be positioned on a flat and stable surface and able to guarantee good drainage to avoid flooding.



– The section of input wire must be rectilinear and aligned perpendicularly to the recharging station for at least 2 m and the output section must be located at least 30 cm from the recharging station; this makes it possible for the robot to enter correctly.



Important

To permit the robot to re-enter the recharging station, it is necessary to install the same within the work area having larger dimensions, hereafter referred to as the "Main Area".

– Make sure that any irrigators , present in the installation area do not direct a jet of water into the recharging station.

– The transmitter - power supplier group must be in a ventilated position, protected from the atmospheric agents and from direct sunlight.

– The transmitter - power supplier group must not be in direct contact with the ground and damp environments.

Warning - Caution

To carry out electric connection, it is necessary to arrange a power supply socket near the installation area. Make sure that the connection to the power supply complies to the laws in force on the subject.

Important

Is it advisable to install the unit in a closet for electric components (for outdoors or indoors), well ventilated to keep a correct air recirculation and provided with a key closure.

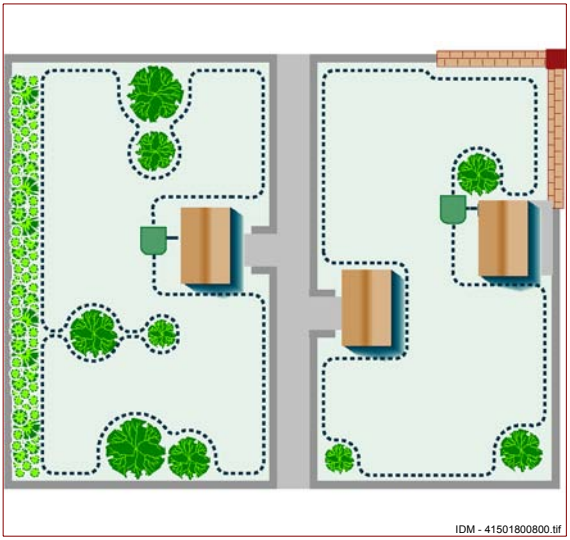
Warning - Caution

Assure that the access to the power supply-transmitter unit is allowed only to authorized people.

If the robot is installed near an area where another robot is installed (from the same or another manufacturer) in the installation phase, a modification must be made to the power-transmitter unit so the frequencies of the two robots don't interfere with each other.

Important

This type of installation must be agreed on in advance with your local reseller.



GB

Perimeter wire path definition

– Check the whole surface of the lawn and assess whether it is necessary to divide it in more separated working areas.

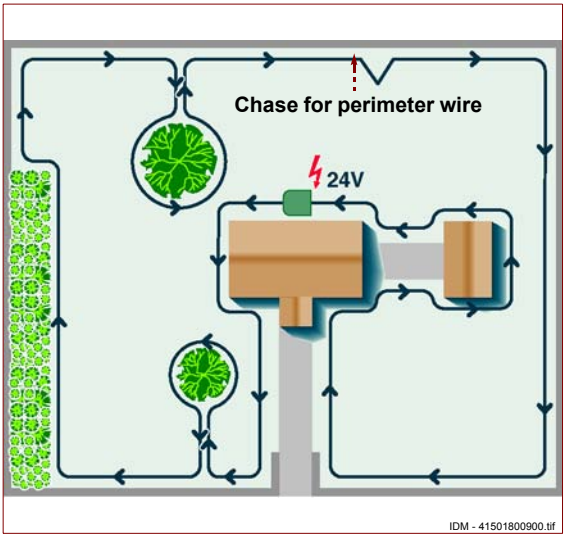
– When positioning the perimter wire, respect the rotation direction around the flowerbeds (anticlockwise).

– Define the perimeter of the main area, any secondary areas, and carry out the operations in the sequence indicated.

1 – Preparation and delimitation of work areas (main and secondary) (see page 16).

2 – Perimeter wire installation (see page 19)

3 – Installation of recharging station and transmitter-power supplier group (see page 23)

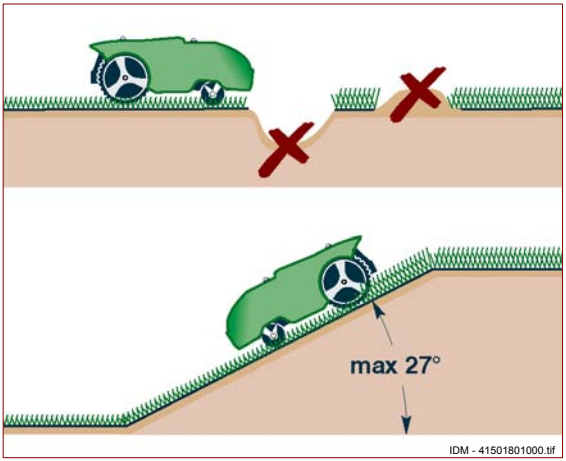


C141501800.fm

GB

Arrangement of lawn to trim

1 – Check that the lawn to trim is even, and without pits, stones or other obstacles. If so, perform the necessary clearance operations.
If some obstacles cannot be removed, it is necessary to properly mark the areas involved.
2 – Check that all the areas of the lawn do not exceed the admissible gradients (See "Technical data").
During the operating phase in sloping areas, when the robot detects the wire the wheels could slip and it may leave the perimeter area.



Important

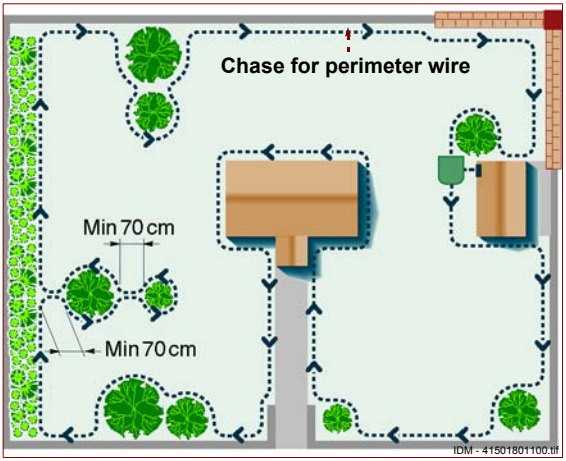
The areas, showing higher gradients than those admitted cannot be trimmed with the robot.

Marking of working area

1 – Check the whole surface of the lawn and assess whether it is necessary to divide it in more separated working areas.

Before starting installation operations of the perimeter wire, to make them easy to perform, it is recommended to properly signal the whole path evenly with straight lines and to trace any curved line.

The figure represents an example of lawn with the trace for the underground laying of the perimeter wire.

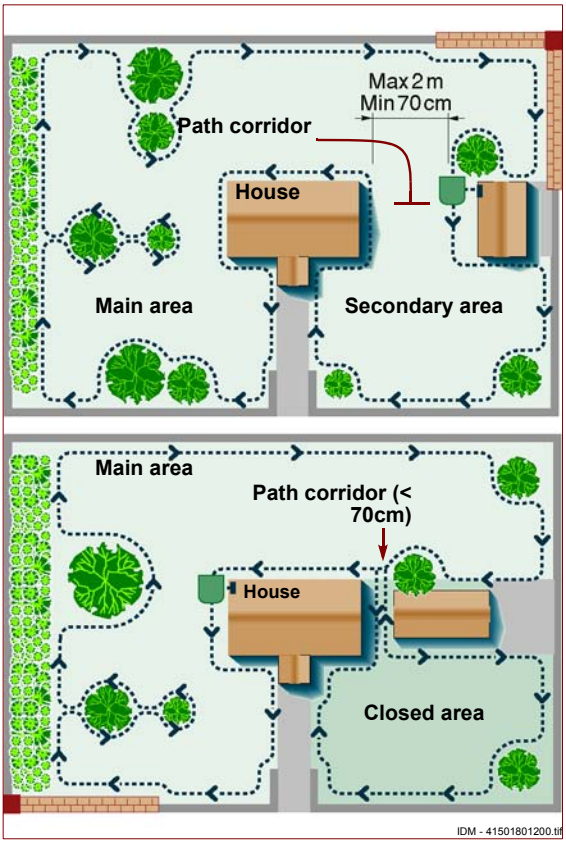


C141501800.fm

Important

– To ensure the robot can operate, it is necessary for the distance separating the delimitation of two elements to be greater than 70 cm. This distance is required to permit robot passage.

– When the connection between one surface and another of the lawn is represented by a passage (corridor) with a width of less than 70 cm and not greater than 2 m, it is necessary to delimit the same with the perimeter wire in a number of work areas that are connected to each other.



GB

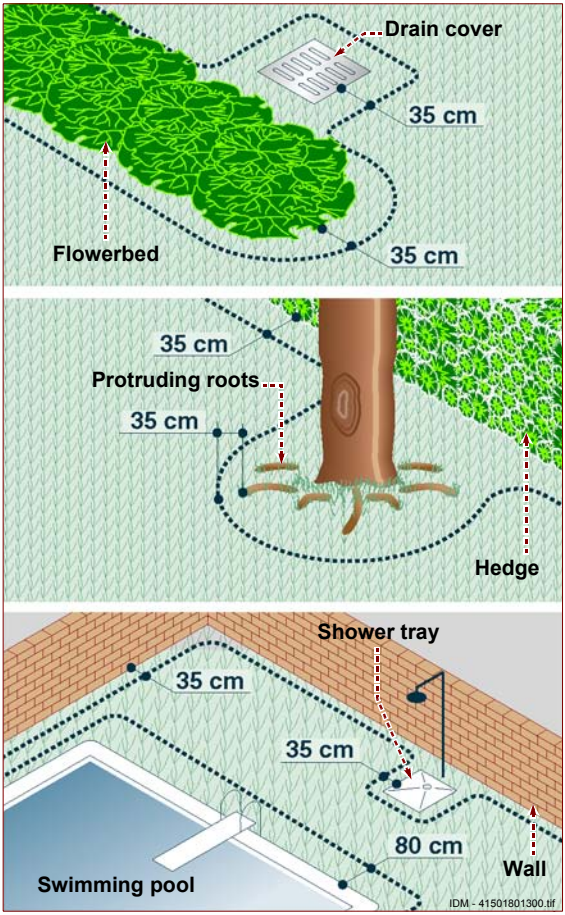
C141501800.fm

2 – Mark and trace the perimeters of the inside and marginal elements of the working area that obstruct the correct functioning of the robot.

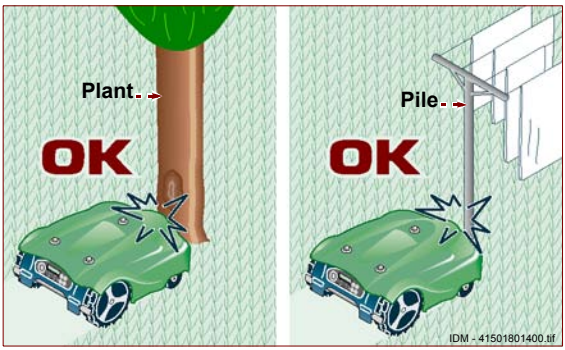
Important

– The figure represents an example of inside an marginal elements of the working area and the distances that must be respected for the tracing of the underground laying of the perimeter wire.

– Mark and trace the perimeters of all the elements in iron or in other metals (manholes, electric connections, etc.) to avoid interferences to the signal of the perimeter wire.



Do not mark those obstacles (trees, poles, etc.) that do not hamper the normal functioning of the robot.

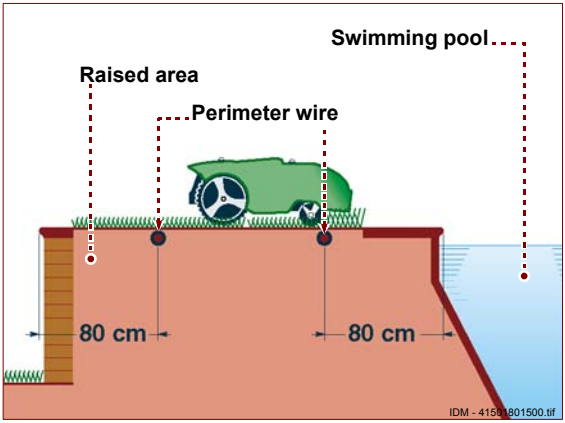


C141501800.fm

3 – Mark the areas, located in a lower position compared to the lawn surface (pools, areas with significant drops, stairs, etc.) (see example in figure).

Important

Strictly respect the distances to avoid that the robot falls with the risk of breaking and/or seriously getting damaged.



GB

4 – Mark and trace the perimeters as shown in the figure.

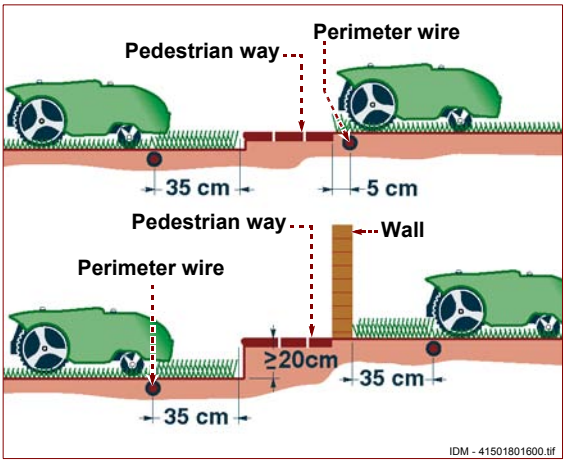
– With small paths at the same height as the lawn: 5 cm

– With small paths higher than the lawn: 35 cm

– In presence of a fencing wall: 35 cm

Important

The passage paths (at the same level of the lawn), necessary for the robot to pass from one area to the other, must not be marked.

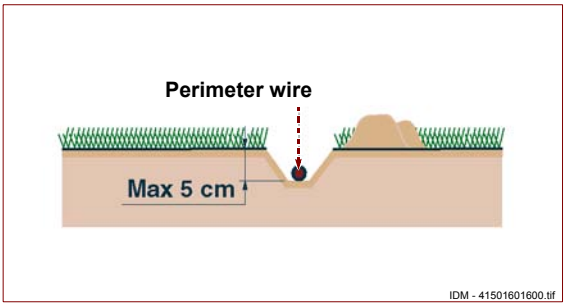


PERIMETER WIRE INSTALLATION

The perimeter wire may be laid underground or on the ground.

Important

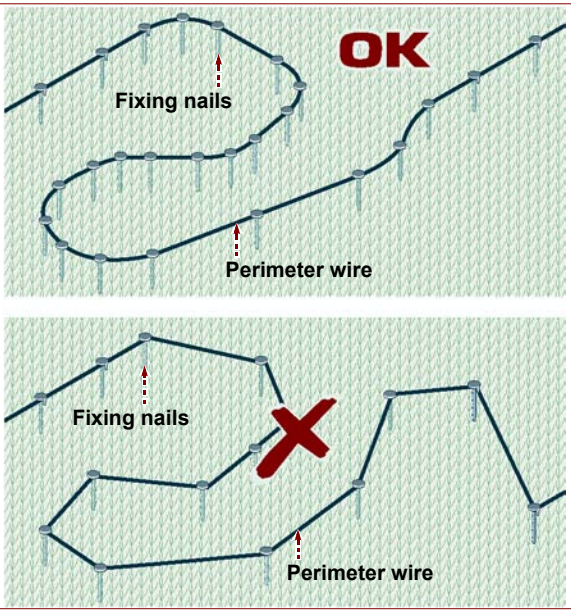
Start laying the perimeter wire from the installation area of the recharging station , leave two metres in excess and then cut it as appropriate in the group connections phase.



C141501800.fm

Wire laid on the ground

1 – Place the wire clockwise along the whole path and fix it with the appropriate nails supplied (distance between the nails 1÷2 m).
– When positioning the perimter wire, respect the rotation direction around the flowerbeds (anticlockwise).
– In the straight stretches, fix the wire so that it is not excessively tight, wavy and/or twisted.
– In the not straight stretches, fix the wire so that it does not twist, but so that it takes on a regular bending.

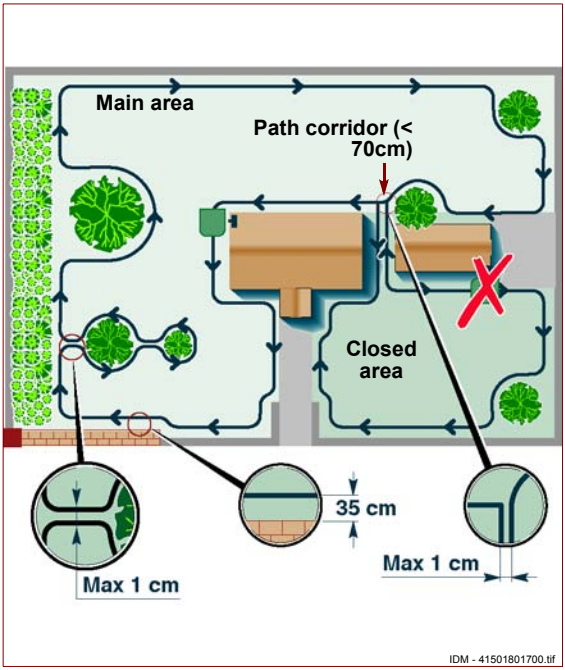


Underground laid wire

1 – Dig up the ground evenly and symmetrically compared to the traced line highlighted on the ground.
2 – Place the wire clockwise along the whole path at the depth of some centimetres (about 2÷3 cm) so not to reduce the quality and the intensity of the signal captured by the robot.
3 – When laying the wire, if necessary, block it in some points with the appropriate nails to keep it in position during the ground covering stage.
4 – Cover up the whole wire with the soil and make sure that it does not twist, but that it remains straight and that, in the curving stretches, it takes on an even bending.

Important

In the path stretches, where it is necessary to pass two parallel wires (for example: connection between the outside perimeter and the inside marked areas), they must be at a distance, which must not exceed 1 cm.



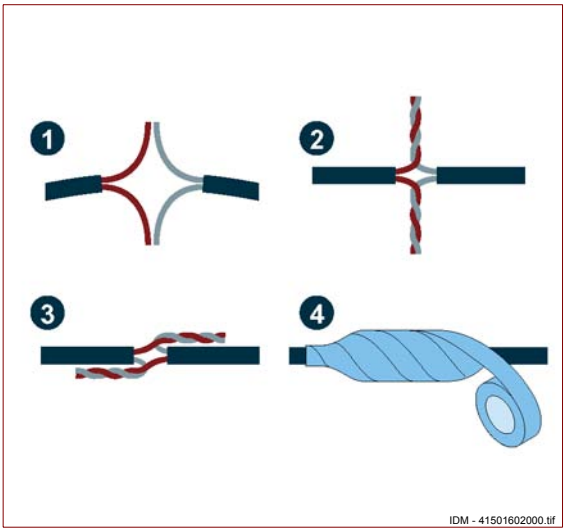
GB

Perimeter wire joint

Important

– In the case of underground wire as well as of ground laid wire, if necessary, properly join it with some other wire, having the same features (see figure).

– During the joint stage, it is recommended to use self-amalgamating tape (for example: 3M Scotch 23). Do not use isolating tape or other types of joints (terminals, clamps, etc.).



C141501800.fm

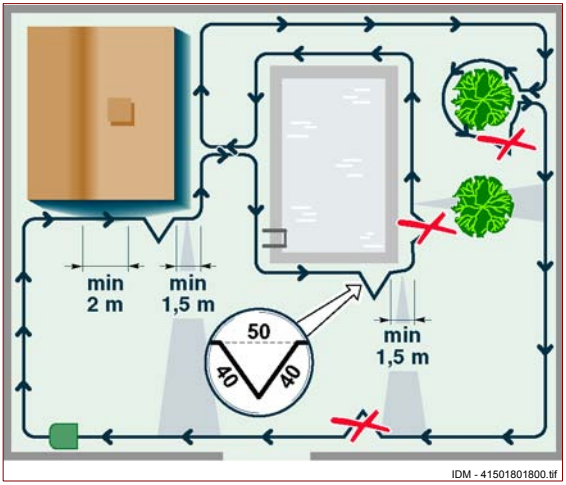
SETTING FOR RAPID ROBOT RE-ENTRY INTO THE RECHARGING STATION

GB

To reduce the times for robot re-entry into the recharging station, carry out settings along the perimeter wire to permit a change of robot direction. In this way, it is possible to reduce the robot re-entry route.

To carry out the re-entry setting, position the perimeter wire along the route so as to form a triangle of 50x40x40 cm.

Carry out the rapid re-entry setting at a point that is preceded by at least 2 m of rectilinear wire and is followed by at least 1.5 m of rectilinear wire.



The setting must not be carried out along the rectilinear section that immediately precedes the recharging station or near to obstacles. Make sure that along the rapid re-entry trajectory, there are no obstacles that can impede rapid re-entry.

Important

– The rapid re-entry setting at an incorrect point may prevent the robot from rapidly re-entering the recharging station.

– When the robot moves along the perimeter to reach a secondary area it does not detect the rapid re-entry setting.

The illustration provides some useful indications for correctly installing the rapid re-entry setting.

C141501800.fm

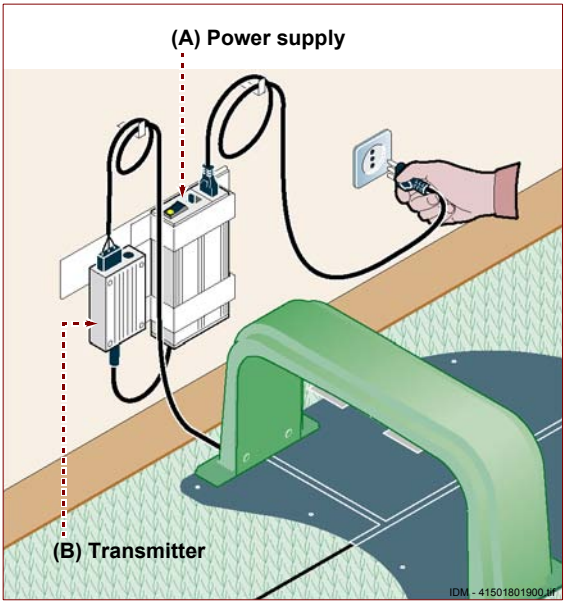
INSTALLATION OF RECHARGING STATION AND TRANSMITTER-POWER SUPPLIER GROUP

1 – Identify the recharging station installation area and the transmitter-power supply group.

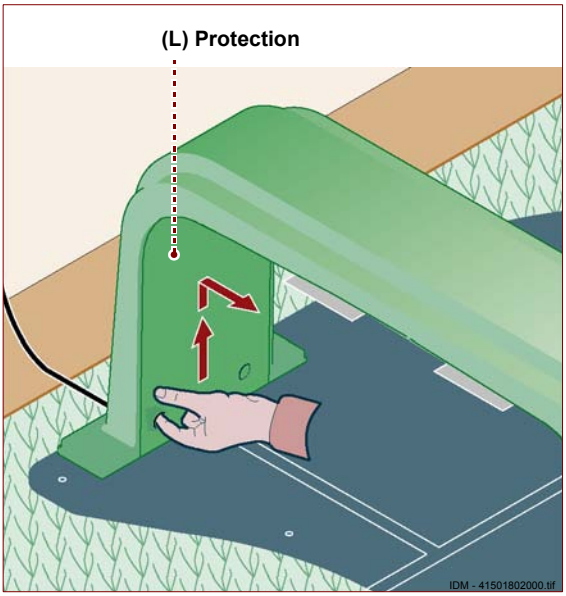
Warning - Caution

Before carrying out any intervention deactivate the general electricity power supply.

2 – Installation of the power supply-transmitter unit **(A-B)**.



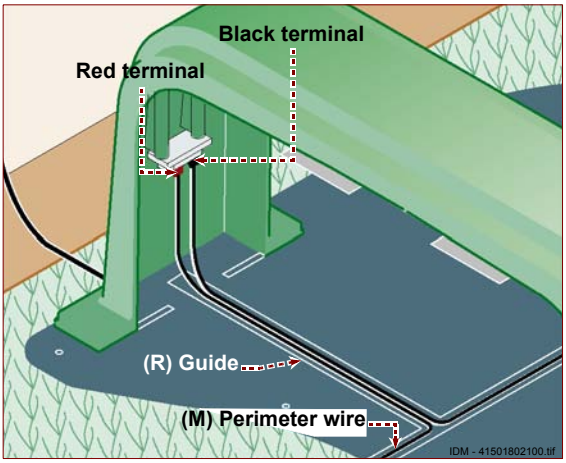
3 – Remove the shield **(L)**.



GB

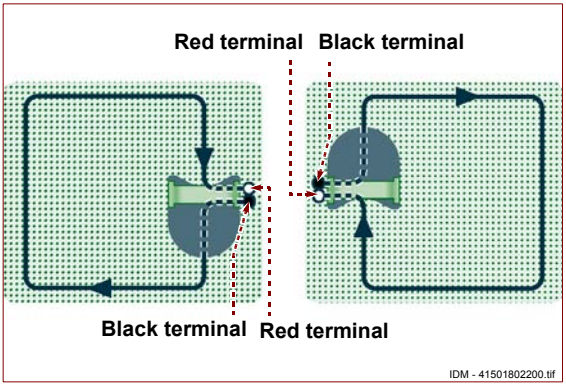
C141501800.fm

4 – Position the base in the predefined area.
5 – Insert the perimeter wire **(M)** in the guide **(R)**.

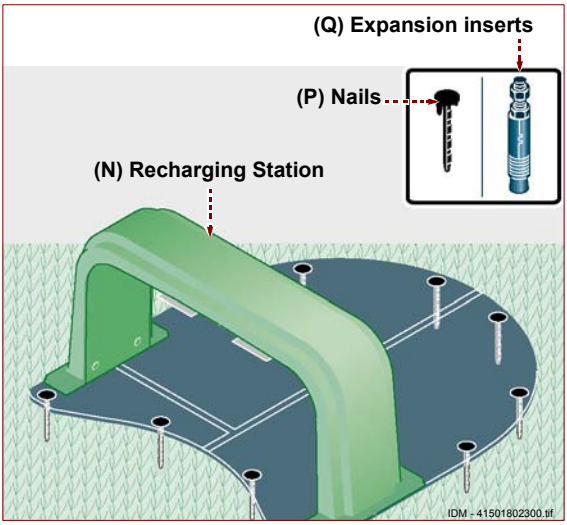


GB

6 – Connect the two ends of the wire to the terminals of the base.

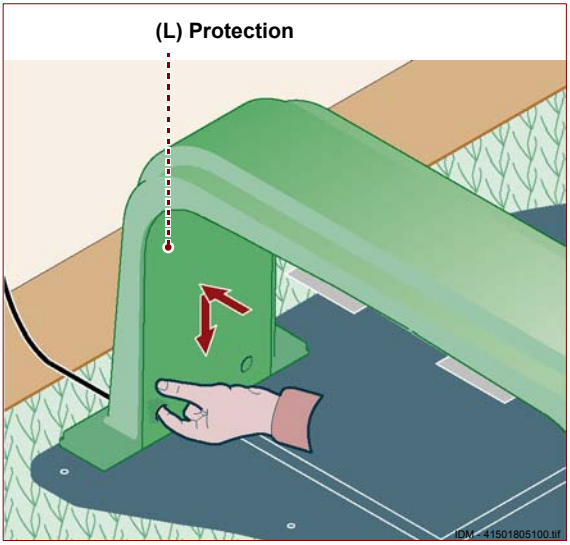


7 – Fasten the base **(N)** to the ground with nails **(P)**.
If necessary, fasten the base with expansion inserts **(Q)**.



C141501800.fm

8 – Reposition the shield **(L)**.



GB

9 – Connect the power supply cable **(E)** of the recharging station **(F)** to the transmitter **(B)**.

10 – Operate on the cursor **(C)** to select the power supply voltage (110 V or 220 V).

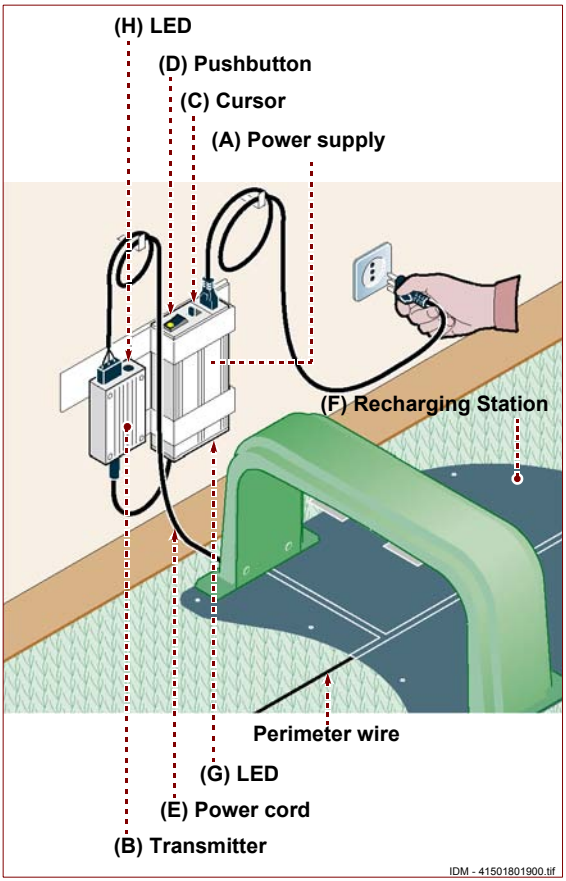
11 – Press the button **(D)** of the power supply unit on OFF.

12 – Connect the plug of the power supply unit **(A)** to the power socket.

13 – Restart the main electric supply.

14 – Press the button **(D)** of the power supply unit on ON.

15 – If the led **(G)** turns on and the led **(H)** flashes alternately green and orange, the connection is correct. Otherwise, it is necessary to find the defect (See "Troubleshooting").



C141501800.fm

BLADE INSTALLATION

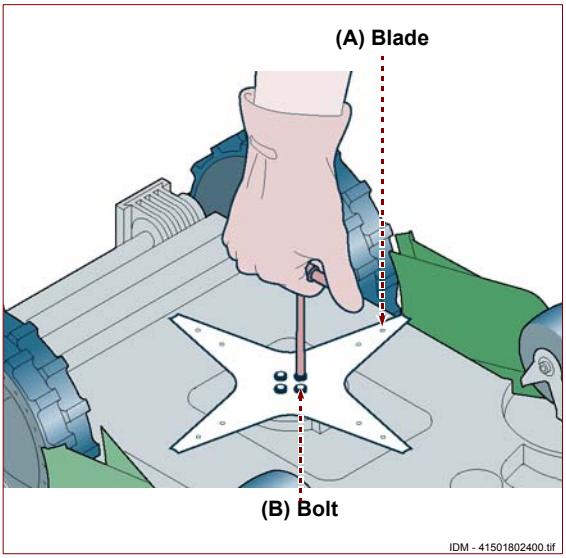
1 – Before assembling and/or replacing the blade, make sure that the robot has been stopped in safety conditions (See "Robot safety stop").
2 – Turn the robot upside down and put it down so not to ruin the covering hood.

GB

Important

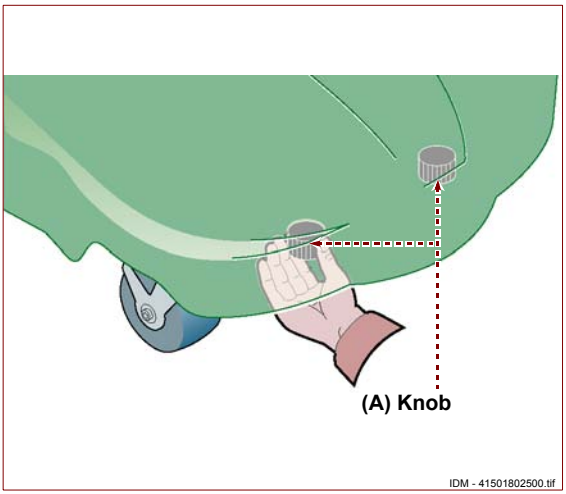
Use protection gloves to avoid the risk of cuts on hands.

3 – Assemble the blade **(A)**.
4 – Tighten screws **(B)**.
5 – Adjust the cutting height (See "Adjusting the cutting height").
6 – Capsize the robot in its functioning position.



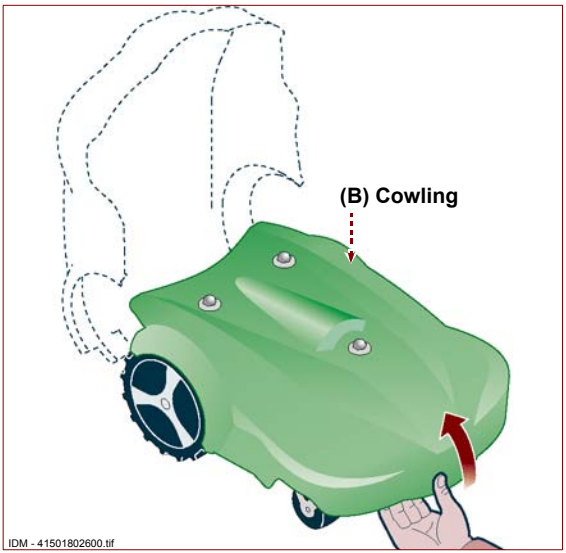
BATTERY INSTALLATION AND CONNECTION

Install the batteries as shown.
1 – Undo the knobs **(A)**.



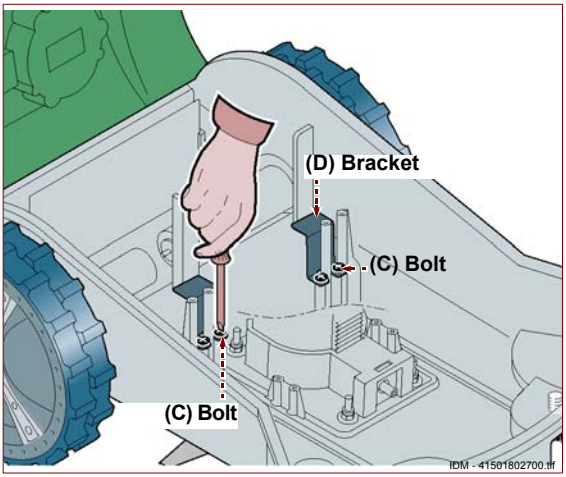
C141501800.fm

2 – Lower the hood **(B)**.

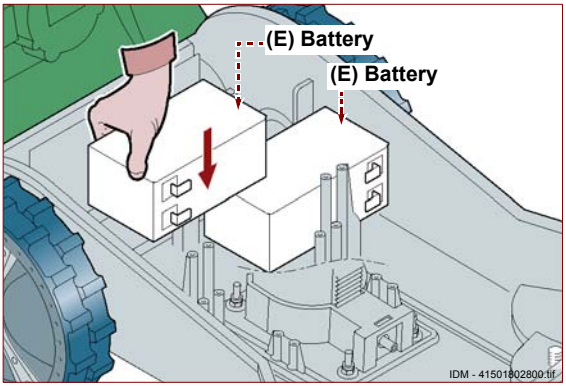


GB

3 – Undo the screws **(C)** and remove the brackets **(D)**.

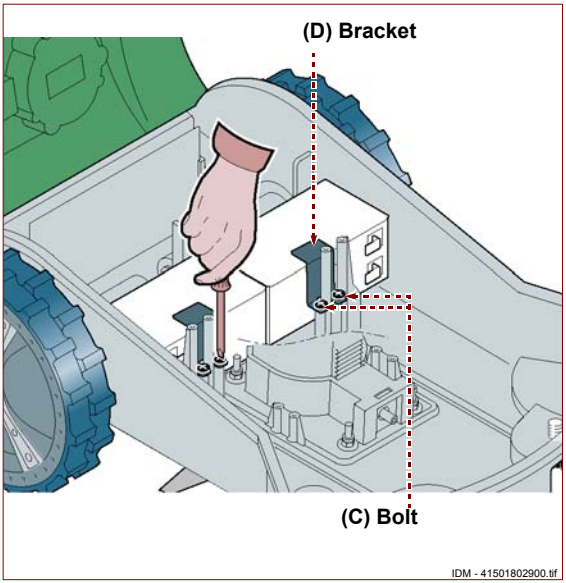


4 – Insert the batteries **(E)** in the appropriate positions.



C141501800.fm

5 – Assemble brackets **(D)** and fix them with screws **(C)**.



GB

Lithium battery connection

1 – Connect the black connector**(F)** with negative polarity(-) and the red connector**(G)** with positive polarity(+) to the corresponding knobs.

On completing the batteries connections proceed as indicated.

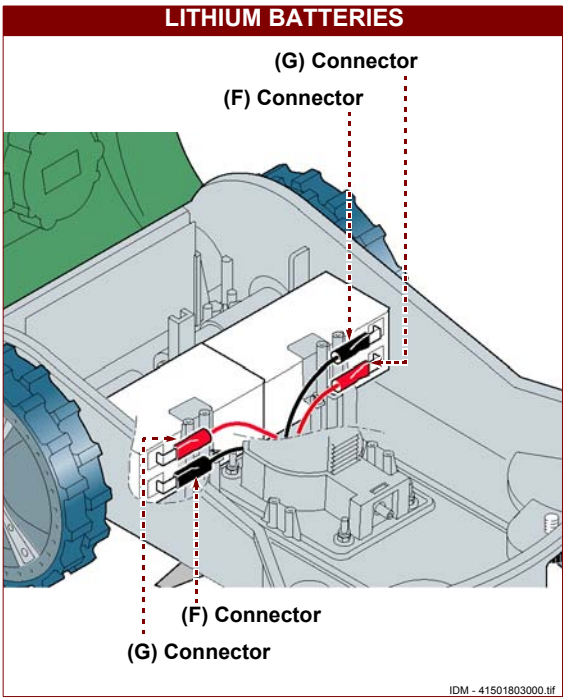
2 – Lower the hood **(B)**.

3 – Tighten the knobs **(A)**.

4 – Insert the robot inside the recharging station.

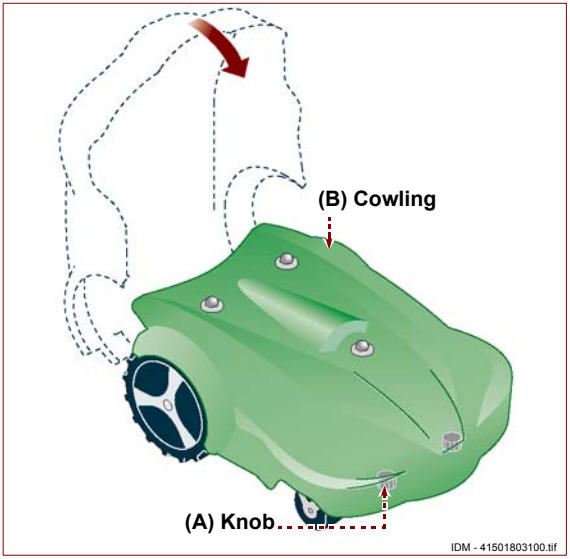
Important

Before using the robot, perform a complete recharge of the new batteries (See "Recharge batteries on first use").



C141501800.fm

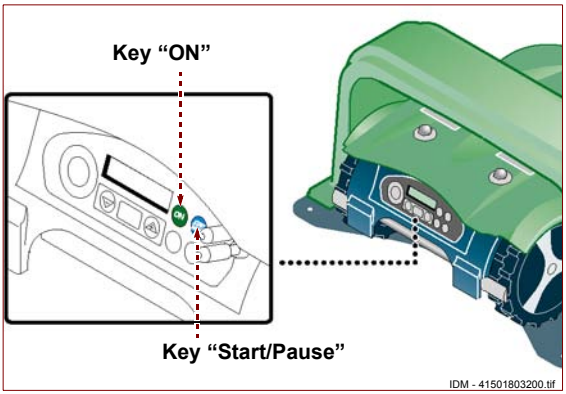
At this point, the robot is ready to use (See "Use and functioning").



GB

RECHARGE BATTERIES ON FIRST USE

1 – Insert the robot inside the recharging station.
2 – Press key **ON**.
3 – After a few seconds the message "CHARGING" appears on the display.
4 – Press the key **"Start/Pause"**.



On the display the "PAUSE" function appears.
The batteries start the recharging cycle.

C141501800.fm

Important

At the first recharge, the batteries must be connected at least 24 hours.

5 – When recharging has finished it is possible to programme the robot for operational activity (See ""TIME" – programming mode").

ADJUSTMENT REMINDERS

Important

– The user must carry out the adjustments according to the procedures described in the manual. Do not perform any adjustments not explicitly indicated in the manual.

– Any extraordinary adjustments, not explicitly indicated in the manual, must be carried out only by the staff of the Authorized Assistance Centres of the Manufacturer.

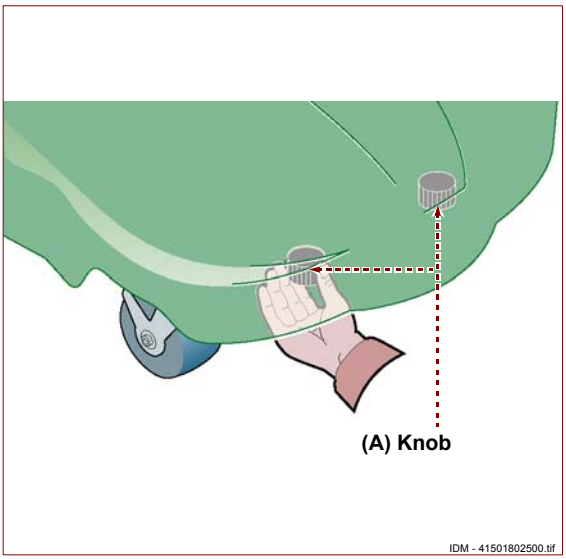
GB

ADJUSTING THE CUTTING HEIGHT

Before setting the cutting height of the blade, make sure that the robot has stopped in safety conditions (See "Robot safety stop").

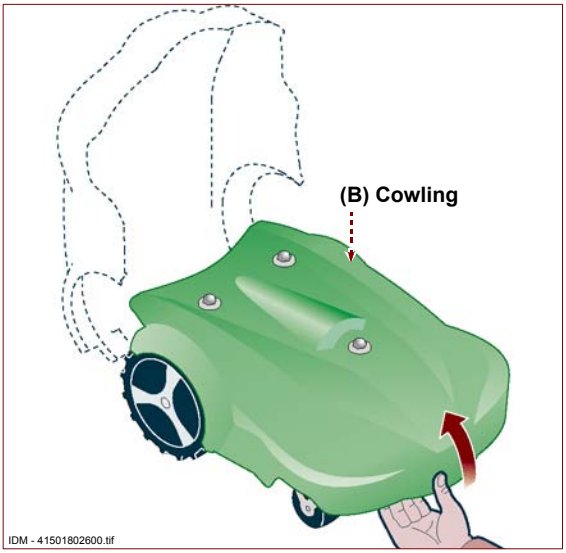
1 – Disable the antitheft alarm to avoid activation (see ""SETTINGS" – programming mode").

2 – Undo the knobs **(A)**.



C141501800.fm

3 – Lower the hood **(B)**.

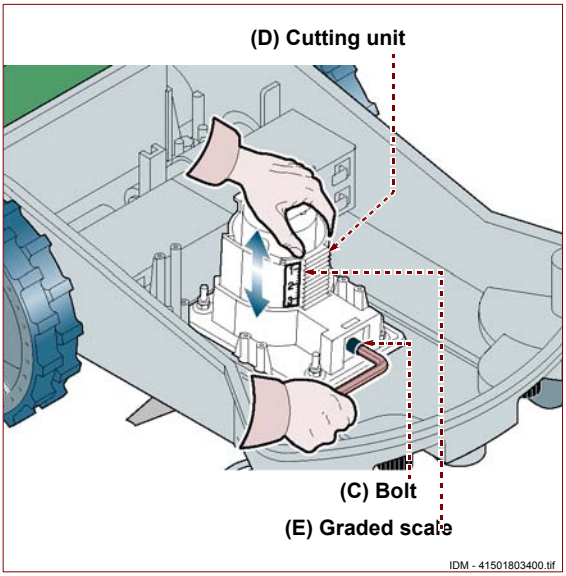


GB

4 – Unscrew the screw **(C)**.

5 – Lift or lower the cutting group **(D)** to define the height of the mowing you want. The value can be measured using a graduated scale **(E)**.

6 – Tighten the screws **(C)** after adjusting.

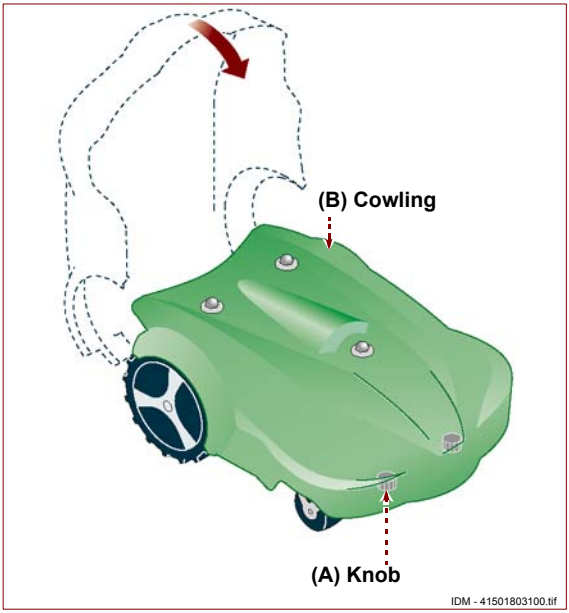


C141501800.fm

7 – Lower the hood **(B)**.
8 – Tighten the knobs **(A)**.

Important

Gradually reduce the cutting height. it is advised to reduce the height by less than 1 cm every 1÷2 days until reaching the ideal height.



GB

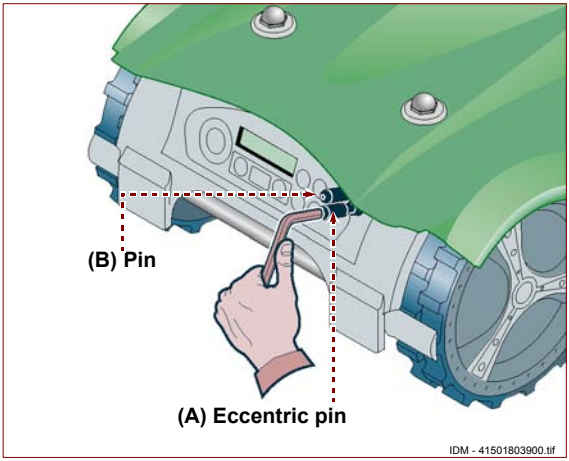
RAIN SENSOR ADJUSTMENT

1 – Stop the robot in safety conditions (See "Robot safety stop").
2 – Adjust the distance between the pins **(A-B)** via rotation of the pin **(A)**.

Important

The sensitivity of the sensor increases with a decrease in the distance between the pins. We recommend not bringing the pins. too close together

When the sensor detects rain conditions, the robot carries out its functions as programmed (See ""SETTINGS" – programming mode").



C141501800.fm

RECOMMENDATIONS FOR USE

Important

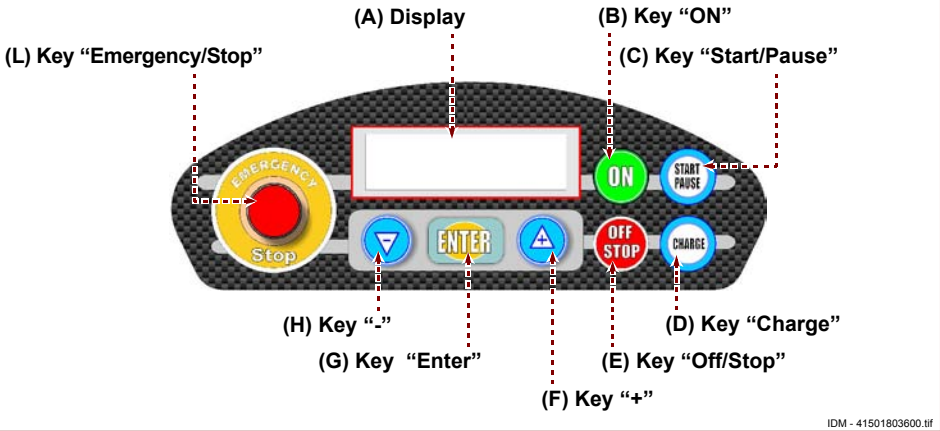
– When using the robot for the first time, it is recommended to carefully read the whole manual and to be sure to have it completely understood, in particular all the information relating to safety.

– Use the equipment only for the tasks authorised by the manufacturer and do not tamper with any device to achieve a different performance from the operating one.

GB

ROBOT CONTROLS DESCRIPTION

The picture shows the position of the functions on the machine.



A – Display: shows all functions

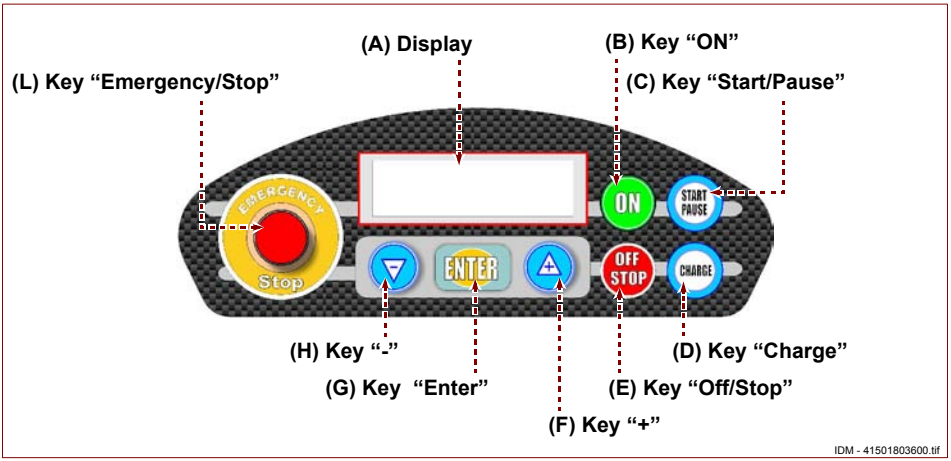
B – ON: press to turn on the lawn mower.

C – START/PAUSE: press to stop the lawnmower, leaving the display in "pause"; in this mode you can programme the lawnmower. Press the button again to start work again. If the key is pressed while the lawnmower is being recharged, the lawnmower won’t start work again until the button is pressed again and "Pause" is no longer shown on the display.

D – CHARGE: press to bring the lawn mower back to the base and recharge the battery in advance. If the key is pressed while the lawn mower is recharging, recharging is interrupted and the lawn mower resumes working.

E – OFF/STOP: press to stop the lawn mower; the display turns off.

C141501800.fm



GB

F – Key "+": when working, press to restart the previously stopped blade. When programming press to increase the items indicated by the menu.
G – ENTER: when working, press to start the spiral function. When programming press to confirm and save the selection performed.
H – Key "-": when working, press to stop the blade. When programming press to decrease items indicated by the menu.
L – EMERGENCY/STOP: press to stop the lawn mower; the display turns off.

ACCESS TO THE MENUS.

The functions of the robot can be programmed through the various functions of each menu. The table shows the list of menus available with the relevant functions.

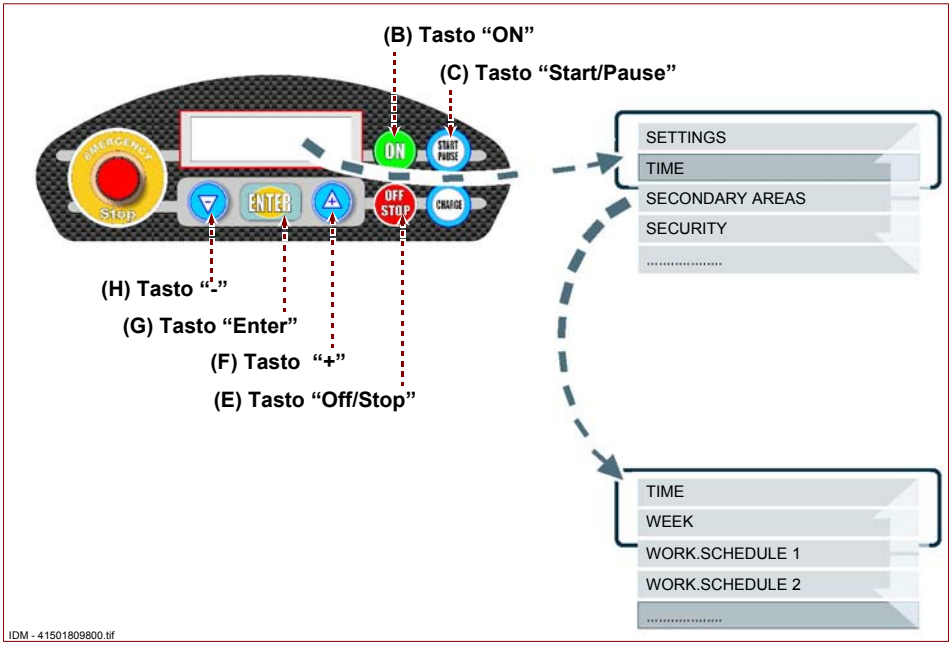
To perform programming operations, follow the instructions.
1 – Press key **"ON" (B)**.
2 – Insert the password (if requested) (See "Enter password").
3 – If the robot is switched on inside the recharging base, after a few seconds, the message "CHARGING" appears on the display.
4 – Press key **"Start/Pause" (C)**.
On the display the "PAUSE" function appears.
5 – Press key **"Enter" (G)**.
On the display the "SETTINGS" function appears.
6 – Press one of the keys **(H-F)** to scroll the list of menus and select the one you want.
7 – Press the key **"Enter" (G)** to confirm the selection.

C141501800.fm

Important

– To memorise the function displayed, press the key "Start/Pause" (C) or the key "Enter" (G).

– The function does not remain memorised if you press key "Off/Stop" (E) before key "Enter" (G) or key "Start/Pause" (C). The robot deactivates.



GB

"SETTINGS" – PROGRAMMING MODE

The modes for activating all the functions in the menu are described.

ALARM: function to enable and disable the alarm.

1 – Press one of the keys **"+"**, **"-"** to activate or deactivate the functions.
– **Enable**: used to activate the alarm. If the robot is lifted using the handle, the alarm is triggered. A triple sound signals activation.
– **Disable**: used to deactivate or switch off the alarm where there is activation. A continual and descending sound indicates deactivation.

C141501800.fm

Important

The "ALARM" function can be activated, deactivated and stopped only by using the password (See "Enter password").

To switch off the alarm it is necesary to proceed as indicated.

2 – Switch on the robot.

3 – Access the "ALARM" function.

4 – Press one of the keys **"+"**, **"-"** to display "Disable".

5 – Insert the password (See "Enter password").

6 – Press the key **"Enter"** to switch off the acoustic alarm.

RAIN SENSOR: function for setting the robot when it rains.

1 – Press one of the keys **"+"**, **"-"** to activate or deactivate the functions.

– **Disable**: when it rains the robot continues to mow.

– **Pause**: when it rains the robot returns to the station and stays there (in "recharging" modality) until the key "Pause" is pressed.

– **Restart**: when it rains the robot returns to the station and stays there in "recharging" modality. Once the recharging cycle has finished the robot starts again and only starts to mow if it is no longing raining.

2 – Press the key **"Enter"** to confirm.

SELF-PROGRAMMING: function to automatically reduce the time the robot takes to cut the grass according to the conditions of the lawn.

1 – Press one of the keys **"+"**, **"-"** to activate or deactivate the functions.

– **Enable**: this is to activate the self-programming function which lets you reduce the operating time of the robot on the basis of the conditions of the grass. When a greater percentage of the lawn has been cut than that preset by the manufacturer, the robot automatically sets a pause interval and delays the next time it will leave the recharge base.

– **Disable**: deactivates the self-programming function.

2 – Press the key **"Enter"** to confirm.

BLUETOOTH: function to enable and disable the "Bluetooth" devices acknowledged by the robot.

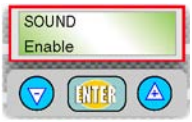
1 – Press one of the keys **"+"**, **"-"** to add or remove devices.

– **Add**: so the robot can acknowledge a new "Bluetooth" device.

– **Remove**: to remove a "Bluetooth" device from the list of devices acknowledged by the robot.

2 – Press the key **"Enter"** to confirm.

SOUND: function to enable and disable the sounds emitted by the robot.



1 – Press one of the keys **"+"**, **"-"** to activate or deactivate the functions.

– **Enable**: used to activate the sounds.

– **Disable**: used to deactivate the sounds.

Important

Even if the "disable" option has been selected, all the sounds emitted for reasons of safety remain active in any case (for example the start of the cutting blade motor).

2 – Press the key **"Enter"** to confirm.

FACTORY SETTINGS: function to reset the settings to the original parameters set by the manufacturer.

1 – Press one of the keys **"+"**, **"-"** to activate or deactivate the functions.
– **Yes**: to reset the initial settings.
– **No**: to cancel the current operation.

2 – Press the key **"Enter"** to confirm.

GB

"TIME" – PROGRAMMING MODE

The modes for activating all the functions in the menu are described.

WEEK: function to programme the working days of the robot during the week.

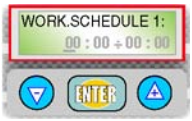
The cursor positions itself automatically in the area under the letter "M" (Monday).

1 – Press one of the keys **"+"**, **"-"** to programme the weekdays when the robot is operational.
– **Value 0**: day of rest for the robot.
– **Value 1**: day of work for the robot.

2 – Press the key **"Enter"** to confirm. The cursor moves on to the next position.

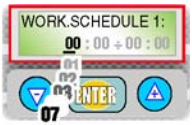
3 – Repeat the procedure to set all the weekdays.

WORK.SCHEDULE 1: function for setting the first robot operational time slot during the day.



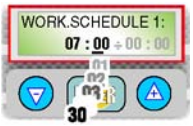
The cursor positions itself automatically in the area under the first time slot (example from 7:30 to 9:30).

1 – Press one of the keys **"+"**, **"-"** to set the mowing start time.



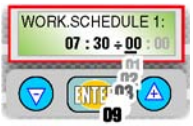
2 – Press the key **"Enter"** to confirm. The cursor moves on to the next position.

3 – Press one of the keys **"+"**, **"-"** to set the mowing start minutes.

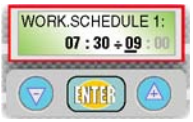


4 – Press the key **"Enter"** to confirm. The cursor moves on to the next position.

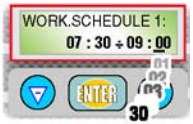
5 – Press one of the keys **"+"**, **"-"** to set the mowing end time.



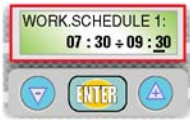
6 – Press the key **"Enter"** to confirm. The cursor moves on to the next position.



7 – Press one of the keys **"+"**, **"-"** to set the mowing end minutes.

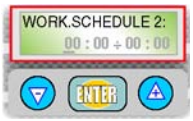


8 – Press the key **"Enter"** to confirm.



WORK.SCHEDULE 2: function for setting the second robot activity time slot during the day.

To programme the work timetable for the second time slot of the day (example from 19.00 to 22.00) repeat the same procedure indicated for "WORK.SCHEDULE 1".



The modes for activating all the functions in the menu are described.

SECONDARY AREA 1: function to define automatic mowing of a secondary area.

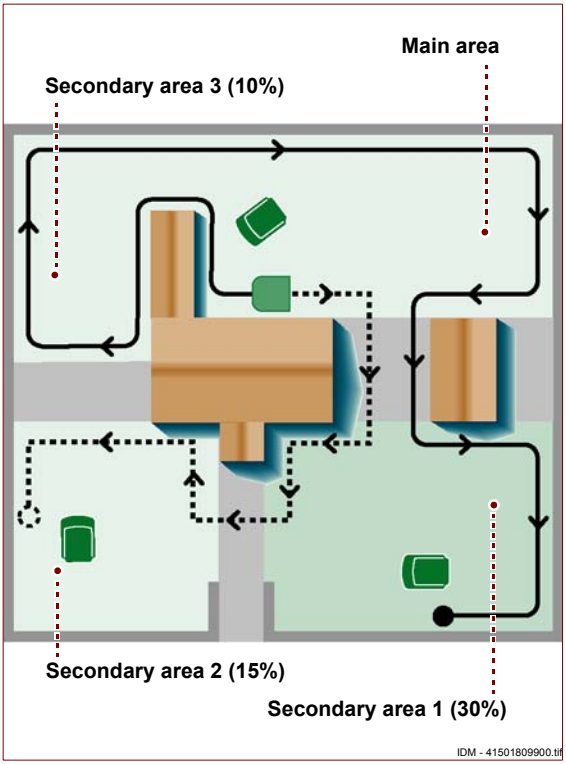
1 – Press one of the keys **"+"**, **"-"** to set the size of the secondary area with respect to that of the whole lawn.

GB

Important

Values over 50% must only be used if the recharge base isn't positioned in the main area.

2 – Press the key **"Enter"** to confirm. The cursor moves on to the next position.



C141501800.fm

3 – Press one of the keys **"+"**, **"-"** to set the working direction of the robot.

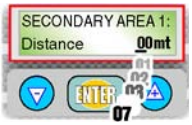
Important

So the robot can quickly reach the secondary area , set the shortest route (clockwise or anticlockwise).

4 – Press the key **"Enter"** to confirm. The cursor moves on to the next position.

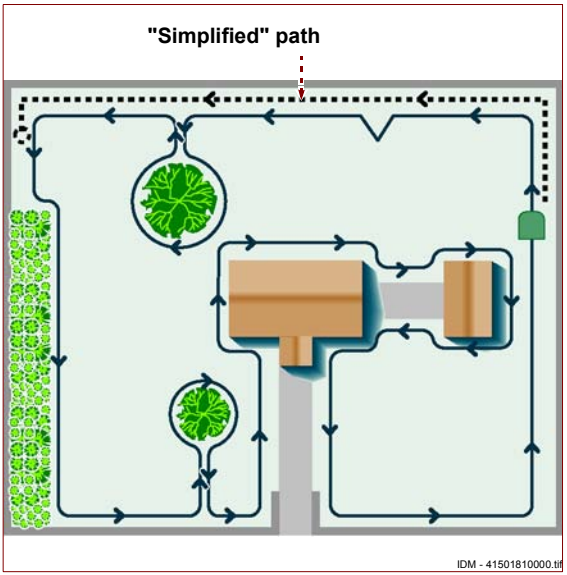
GB

5 – Press one of the keys **"+"**, **"-"** to set the distance of the recharge base from the secondary area.



Important

When the robot leaves the recharge station to reach the secondary area it follows a "simplified" route along the external perimeter. The dotted line shown in the illustration represents an example of such a route. To measure the distance of the route follow this principle.



6 – Press the key "Enter" to confirm.

C141501800.fm

SECONDARY AREA 2: function to define automatic mowing of a secondary area 2.

To set the mowing mode of secondary area 2, repeat the same procedure indicated for "Secondary area 1".

SECONDARY AREA 3: function to define the automatic mowing of secondary area 3.

To set the mowing mode of secondary area 3, repeat the same procedure indicated for "Secondary area 1".

Important

The sum of the secondary areas must never exceed the value 100%.

"SECURITY" – PROGRAMMING MODE

The modes for activating all the functions in the menu are described.

GB

CHANGE PASSWORD: function to set or change the password.

1 – Press one of the keys **"+"**, **"-"** to activate or deactivate the functions.
– **Yes**: used to insert a new password.
– **No**: used to leave the previously inserted password.

2 – Press the key **"Enter"** to confirm.

Important

– To set or modify the password it is necessary to first insert the previous one and then proceed with insertion of the customised one.

– When purchased, the password inserted by the manufacturer comprises four numbers (0000).

3 – Press one of the keys **"+"**, **"-"** to set the first number.

4 – Press the key **"Enter"** to confirm. The cursor moves on to the next position.
5 – Repeat the procedure to set all the numbers of the password.

6 – When the procedure has been completed, on the display the function "NEW PASSWORD" appears.
The cursor automatically positions itself in the area under the first number.

C14150180O.fm

7 – Press one of the keys **"+"**, **"-"** to set the first number.

8 – Press the key **"Enter"** to confirm. The cursor moves on to the next position.

9 – Repeat the procedure to set all the numbers of the password.

10 – When the procedure has been completed, on the display the "REPEAT PASSWORD" function appears.

11 – Press one of the keys **"+"**, **"-"** to set the first number.

12 – Press the key **"Enter"** to confirm. The cursor moves on to the next position.

Repeat the procedure to set all the numbers of the password.

Important

Repetition of the password insertion procedure is used to be sure that it has been set correctly. To avoid forgetting the password, we recommend choosing a combination that is easy to remember.

STARTING PASSW.: function for programming or not the password insertion request each time the robot is switched off and re-started after a period of inactivity (example, winter service).

1 – Press one of the keys **"+"**, **"-"** to activate or deactivate the functions.
– **No**: after a period of inactivity, the robot, with each re-ignition, starts up and begins operations without the password having to be inserted.
– **Yes**: after a period of inactivity, the robot, with each re-ignition, does not start up and does not begin operations until the password has been inserted.

2 – Press the key **"Enter"** to confirm.

LOCK KEYBOARD: function to lock the keyboard when the robot is in the recharge base. When you press a key, the robot will ask you for the password (See "Enter password").

1 – Press one of the keys **"+"**, **"-"** to activate or deactivate the functions.

– **No**: the keyboard is always unlocked.
– **Yes**: the keyboard is locked and you must enter the password to unlock it.

2 – Press the key **"Enter"** to confirm.

"WORK MODE " – PROGRAMMING MODE

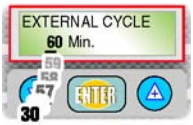
The modes for activating all the functions in the menu are described.

WORK MODE: function to set the robot with the perimeter wire or bump detector acknowledgment mode.

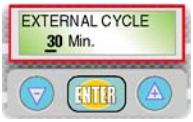
1 – Press one of the keys **"+"**, **"-"** to set the type of delimitation installed along the perimeter.

– Select "Automatic" if the perimeter wire has been installed.
– Select "Without perimeter" if the perimeter wire hasn't been installed.
– Select "External cycle" if you want to use the robot in a closed area.

2 – Press one of the keys **"+"**, **"-"** to set the minutes.



3 – Press the key **"Enter"** to confirm.



Important

When the lawnmower is turned on it automatically goes into the "Automatic" mode. The options "External cycle" and "Without perimeter" are deactivated when the robot is turned off. Use them with great care and only if there are no swimming pools or uneven ground.

"LANGUAGE AND DATE/TIME FORMAT" – PROGRAMMING MODE

The modes for activating all the functions in the menu are described.

LANGUAGE: function for selecting the messages display language.

1 – Press the **(+)** Key and the **(-)** Key to scroll the available languages.
2 – Press the key **"Enter"** to confirm the language selected.

DATE FORMAT: function to select the format with which the date is shown on the display.

1 – Press the **(+)** Key and the **(-)** Key to scroll the available formats.
2 – Press the key **"Enter"** to confirm.

TIME FORMAT: function to select the format with which the time is shown on the display.

1 – Press the **(+)** Key and the **(-)** Key to scroll the available formats.
2 – Press the key **"Enter"** to confirm.

UNIT OF MEASURE: function for selecting the unit of measure for the distances.

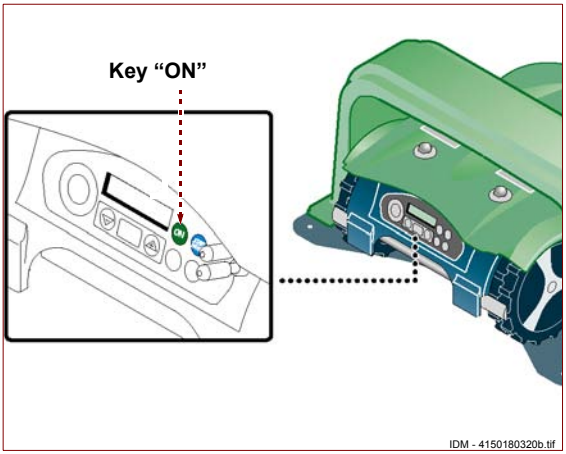
1 – Press the **(+)** Key and the **(-)** Key to scroll the available units of measure.
2 – Press the key **"Enter"** to confirm.

AUTOMATIC CYCLE START

Automatic cycle start-up is carried out when operational activity first starts or after a period of inactivity.
1 – Press key **"ON"**.

2 – Insert the password (if requested) (See "Enter password").

3 – If the robot is started up for the first time, it is necessary to carry out programming. If, on the other hand, the robot is started up after a period of inactivity, it is necessary to check that the programmed functions correspond to the effec-



tive status of the surfaces to be mown (e.g. addition of a swimming pool, plants etc.) (See "SETTINGS" – programming mode").

4 – Adjust the cutting height (See "Adjusting the cutting height").

5 – Adjust the sensitivity of the rain sensor (See "Rain sensor adjustment").

6 – Position the robot inside the recharging station.

Important

If the antitheft alarm is enabled, disable it before lifting the robot (See "SETTINGS" – programming mode").

7 – After some seconds, on the display the "LOADING" message appears.

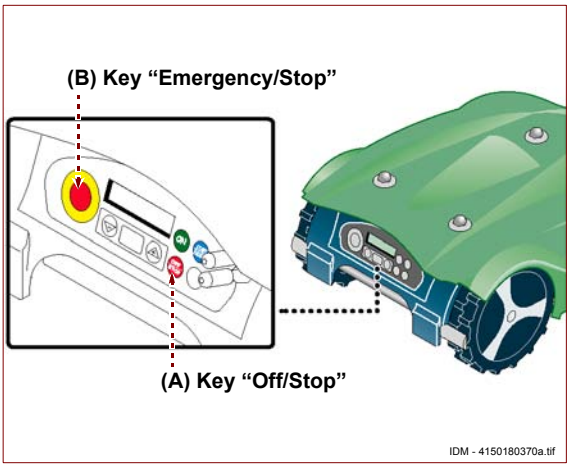
8 – The robot starts to mow the lawn in accordance with the programmed modalities.

GB

ROBOT SAFETY STOP

When using the robot, it may be necessary to stop it in safety conditions to avoid the ranger to a sudden start of the blade.

Press key **"Off/Stop" (A)** or key **"Emergency/Stop" (B)** to stop the robot.



Important

The stop of the robot in safety conditions is necessary in order to carry out maintenance and repair interventions (for example: battery replacement and/or recharge, blade replacement, cleaning operations, etc.)

C14150180O.fm

ROBOT AUTOMATIC STOP

The robot stops automatically when the listed conditions occur.

– **Run-down batteries**: The robot automatically re-enters the recharging station.

– **Rain**: When it rains the robot auotmatically enters the recharging station and functions in accordance with programmed modalities (See "SETTINGS" – programming mode").

– **Trimmed lawn**: The sensor detects the mown lawn, the robot automatically re-enters the recharging station and again starts to function in accordance with programmed modalities (See "WORK MODE " – programming mode").

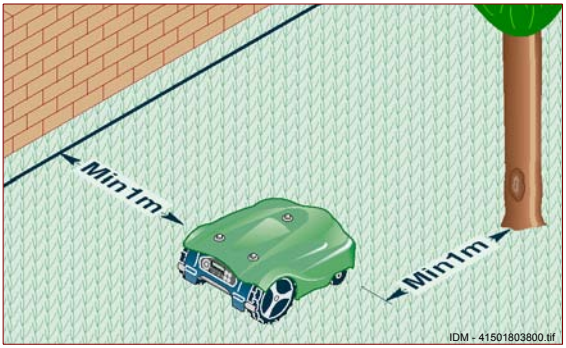
– **End of work period**: When it has completed its work period, the robot automatically re-enters the recharging station and again starts to function in accordance with programmed modalities (See "TIME" – programming mode").

MANUAL STARTUP AND STOP OF ROBOT (IN CLOSED AREAS)

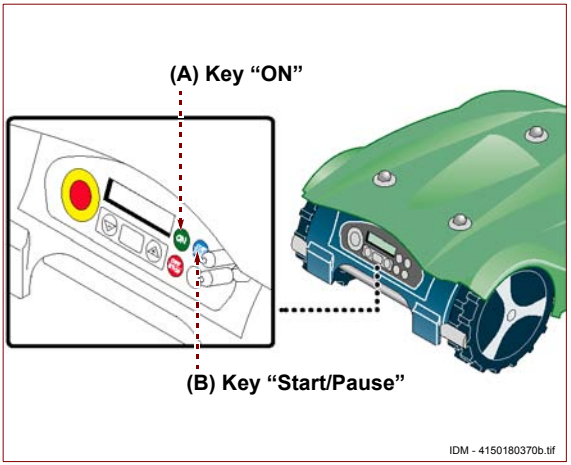
GB

Start-up of the robot in manual mode must be carried out to mow areas that are not included in the programming of surfaces to be mown in automatic modality.

Place the robot inside the working area at least 1 m far from the perimeter wire and from any other obstacle.



1 – Press key **"ON" (A)**.
2 – Insert the password (if requested) (See "Enter password").



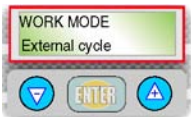
C141501800.fm

3 – On the display the "PAUSE" function appears.

4 – Activate the function "external cycle" (See "WORK MODE " – programming mode").

5 – Press the key **"Start/Pause" (B)** to start up the robot.

At the end of the set time, the robot stops in safe conditions near the perimeter wire.



6 – Position the robot inside the recharging station.

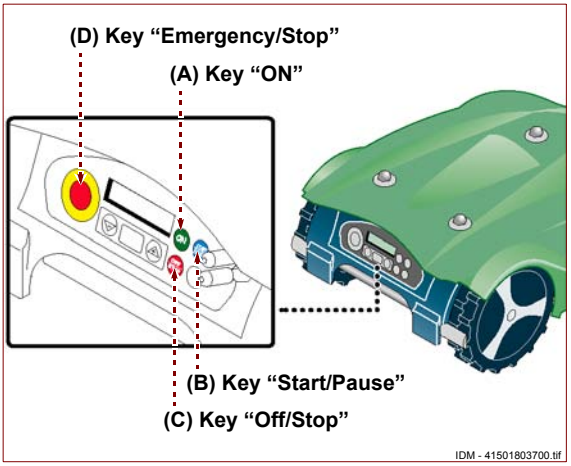
GB

Important

If the antitheft alarm is enabled, disable it before lifting the robot (See "SETTINGS" – programming mode").

ROBOT START WITHOUT PERIMETER WIRE

This mode can be executed with your cellphone to mow areas completely enclosed by fences or to mow small areas which can't be marked off for example, or for practical demonstrations of the robot's functions.



Important

When the robot is used without the perimeter wire, it is recommended to make sure that the robot does not hit into obstacles, corners or blunt objects so to avoid damages or breaks.

1 – Press key **"ON" (A)**.

2 – Insert the password (if requested) (See "Enter password").

3 – On the display the "PAUSE" function appears.

C141501800.fm

4 – Activate the function "without perimeter" (See "WORK MODE " – programming mode").
5 – Start the robot and manoeuvre it with your cellphone.

Important

We recommend manoeuvring the robot to mow in a limited, well-visible area and avoiding letting it bump into obstacles if possible.

6 – After mowing, press key **"Off/Stop"(C)** or key **"Emergency/Stop" (D)** to stop the robot in a safe state (See "Robot safety stop").

GB

Important

If the antitheft alarm is enabled, disable it before lifting the robot (See "SETTINGS" – programming mode").

7 – Position the robot inside the recharging station.

ENTER PASSWORD

The robot can be protected by a password comprising four figures which the user can enable, disable and customise (See "SECURITY" – programming mode").
1 – The following message appears on the display:

2 – Press one of the keys **"+"**, **"-"** to set the first figure.

3 – Press the key **"Enter"** to confirm. The cursor moves on to the next position.
4 – Repeat the procedure to set all the numbers of the password.

At this point, the robot is ready to use.

C141501800.fm

DISPLAY VISUALISATION IN WORK PHASE

While the lawn mower is operating, the following data are displayed:
– Left wheel motor speed
– Cutting blade motor speed
– Right wheel motor speed
– Battery voltage.

When the lawn mower is being recharged, the message "CHARGING" appears in the display.

If the lawn mower is out of its work timetable, the display shows the day and time of work start.

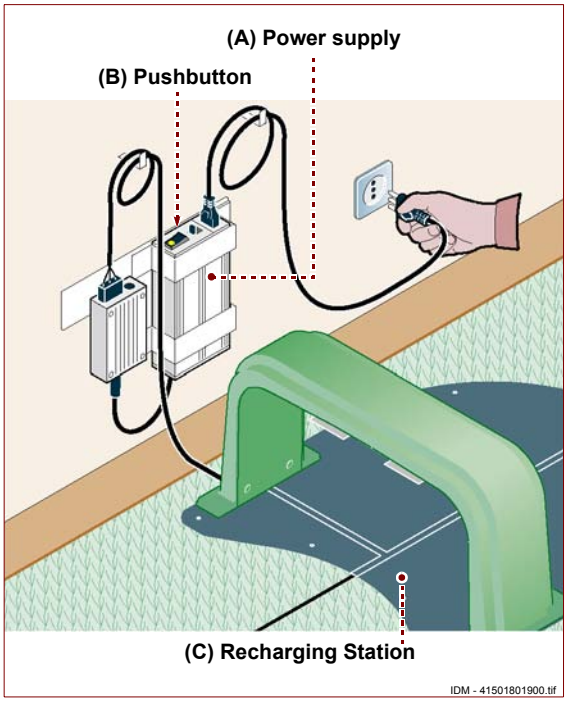
GB

PROLONGED INACTIVITY AND SERVICE RESTART

In case of prolonged inactivity of the robot, it is necessary to carry out a series of operations to assure its correct functioning when it is re-used.

1 – Carefully clean the robot and the recharging station (See "Robot cleaning").

2 – Recharge the battery at least once every 5 months for lithium batteries (See "Recharge batteries for extended inactivity").



Important

If the antitheft alarm is enabled, disable it before lifting the robot (See "SETTINGS" – programming mode").

3 – Place the robot in a safe and dry place, at a suitable room temperature 10-30 °C and not easily reachable by unfamiliar people (children, animals, etc.).

4 – Disconnect the plug of the power supply unit **(A)**.

5 – Cover the recharging station **(C)** to prevent any material entering it (leaves, paper etc.) and to protect the contact plates.

C141501800.fm

Service restart

Before restarting the robot after a long inactivity, proceed as shown.

1 – Connect the plug of the power supply unit **(A)** to the power socket.

2 – Restart the main electric supply.

3 – Press the button **(B)** of the power supply unit on ON.

Important

If the antitheft alarm is enabled, disable it before lifting the robot (See "SETTINGS" – programming mode").

GB

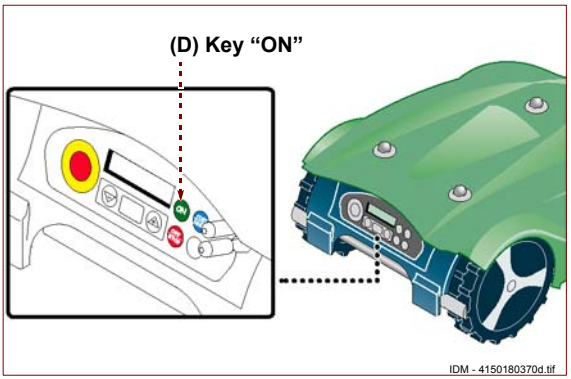
4 – Position the robot inside the recharging station.

5 – Press key **"ON" (D)**.

6 – Insert the password (if requested) (See "Enter password").

7 – After a few seconds the message "CHARGING" appears on the display.

8 – At this point, the robot is ready to use (See "TIME" – programming mode").



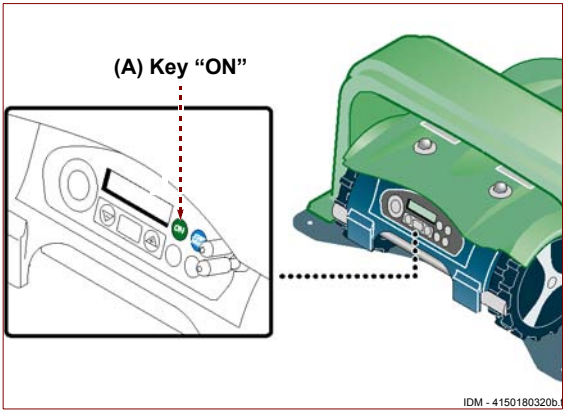
RECHARGE BATTERIES FOR EXTENDED INACTIVITY

Recharge the battery at least once every 5 months for lithium batteries.

1 – Power the recharging base and make sure that the plates are clean.

Important

If the antitheft alarm is enabled, disable it before lifting the robot (See "SETTINGS" – programming mode").



2 – Position the robot inside the recharging station.

3 – Press key **"ON" (A)**.

4 – Insert the password (if requested) (See "Enter password").

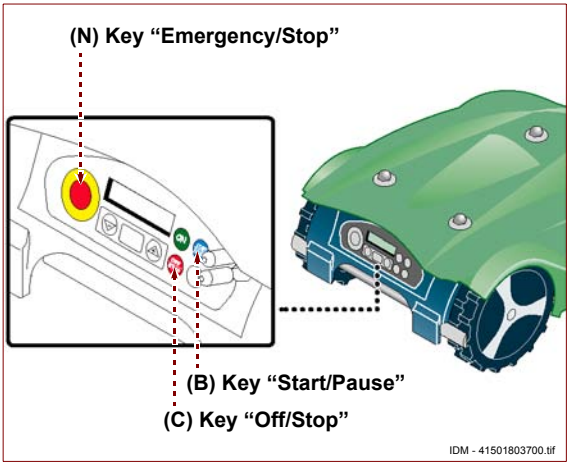
5 – After a few seconds the message "CHARGING" appears on the display.

C14150180O.fm

6 – Press key **"Start/Pausa" (B)**. The batteries start the recharging cycle.

7 – After fully recharging (roughly 6 hours) press key **"Off/Stop" (C)** or key **"Emergency Stop" (N)**.

8 – Place the robot in a safe and dry place, at a suitable room temperature 10-30 °C and not easily reachable by unfamiliar people (children, animals, etc.).



GB

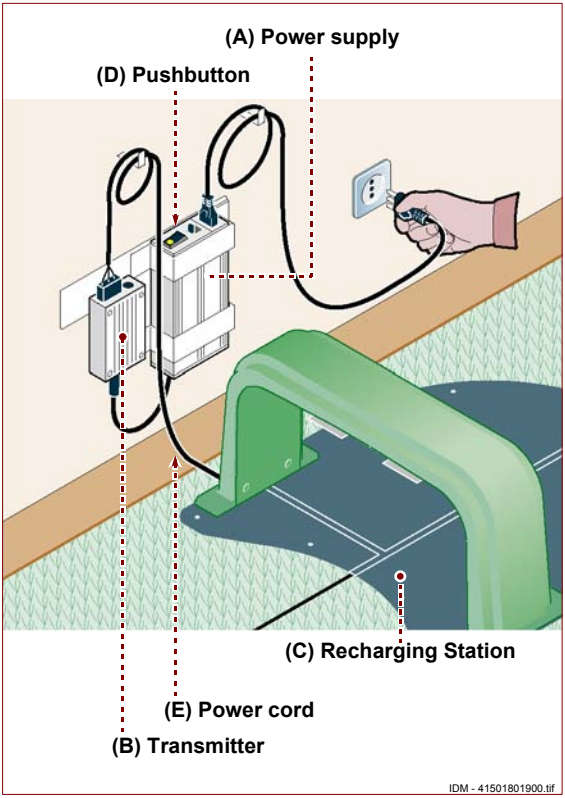
Batteries reset with winter recharging kit (optional)

The kit makes it possible to recharge the batteries or keep them charged, during the winter period, without using the recharging station.

1 – Press the button **(D)** of the power supply unit on OFF.

2 – Disconnect the plug of the power supply unit **(A)**.

3 – Disconnect the cable **(E)** from the transmitter group **(B)**.



C141501800.fm

4 – Connect the cable of the kit **(F)** to the transmitter group **(B)**.

5 – Connect the plug of the power supply unit.

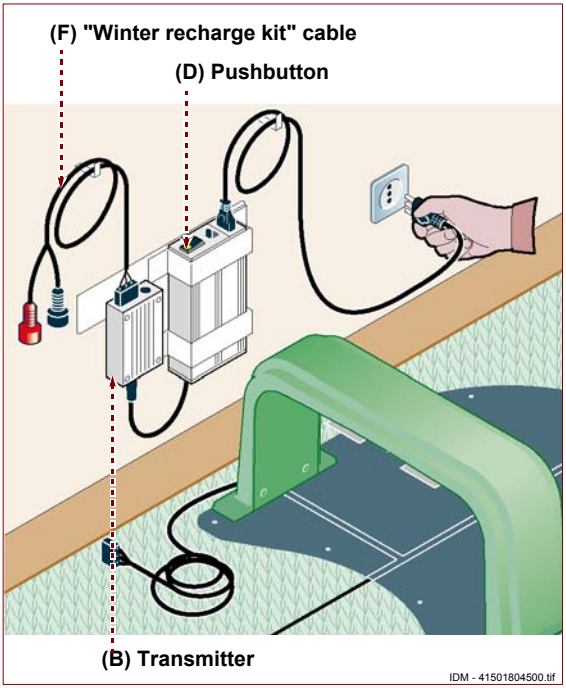
6 – Press the button **(D)** of the power supply unit on ON.

Important

If the antitheft alarm is enabled, disable it before lifting the robot (See "SETTINGS" – programming mode").

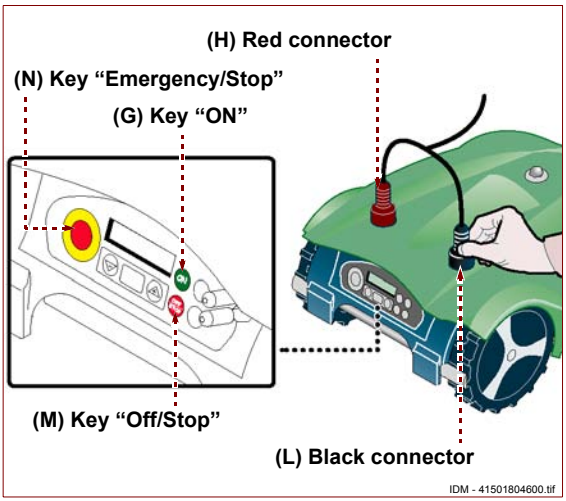
GB

7 – Position the robot near the transmitter-power supply group.



8 – Press key **ON (G)**.

9 – Insert the password (if requested) (See "Enter password").



10 – The following message appears on the display:

C141501800.fm

11 – After some seconds, the message appears on the display.
12 – Connect the connector **(H)** (red, polarity +).
13 – Connect the connector **(L)** (black, polarity -).

Warning - Caution

A wrong connection of the poles may irreversibly damage the batteries and the electronic circuits.

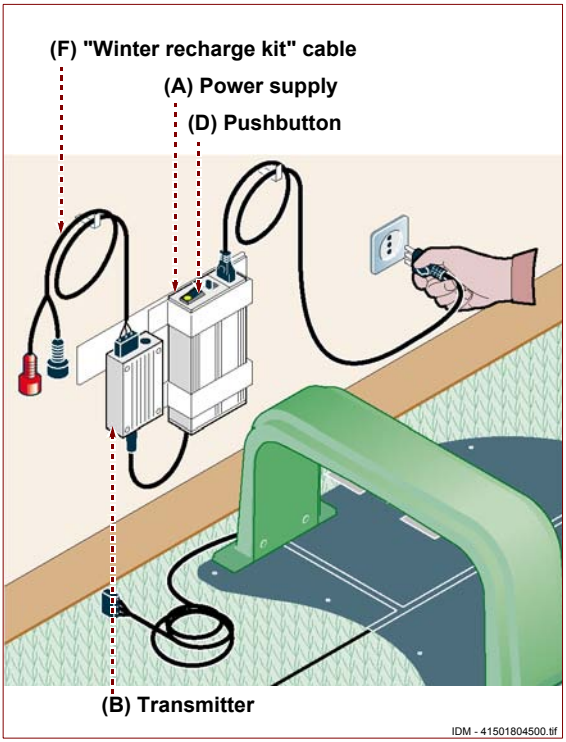
Important

The connection of the connectors must be carried out within 30 seconds from activation of the key "ON". Once that period has elapsed, the robot automatically switches off. Repress key "ON" to complete the operation.

GB

14 – the following message appears on the display:
The batteries start the recharging cycle.

15 – After fully recharging (roughly 6 hours) press key **"Off/Stop" (M)** or key **"Emergency Stop" (N)**.
16 – Disconnect the connector **(H)** (red, polarity +).
17 – Disconnect the connector **(L)** (black, polarity -).
18 – Place the robot in a safe and dry place, at a suitable room temperature 10-30 °C and not easily reachable by unfamiliar people (children, animals, etc.). Once the winter season has ended, disconnect the kit and reactivate the recharging station.
19 – Press the button **(D)** of the power supply unit on OFF.
20 – Disconnect the plug of the power supply unit **(A)**.
21 – Disconnect the cable **(F)** from the transmitter group **(B)**.



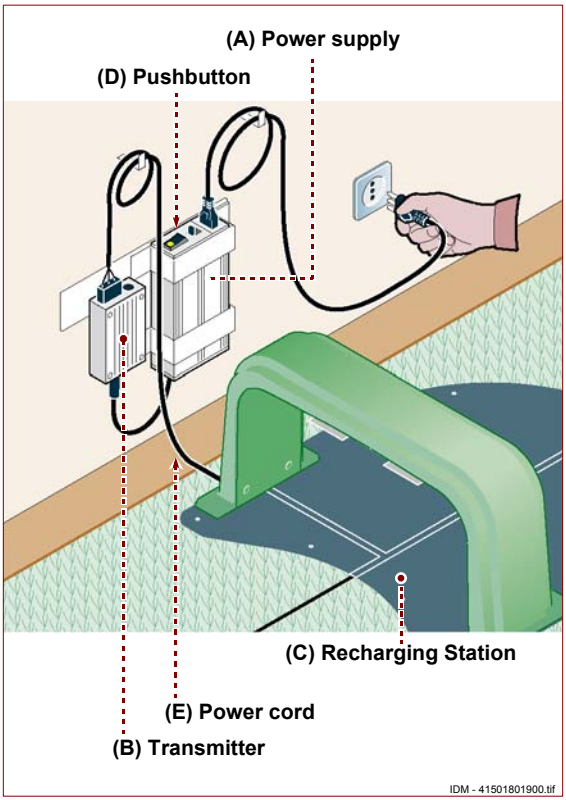
C141501800.fm

22 – Connect the cable of the kit **(E)** to the transmitter group **(B)** (See "Installation of recharging station and transmitter-power supplier group").

23 – Connect the plug of the power supply unit **(A)**.

24 – Press the button **(D)** of the power supply unit on ON.

25 – Position the robot inside the recharging station.



GB

RECOMMENDATIONS FOR USE

Here below are some indications to follow during the use of the robot.

– Even after a proper reading of instructions, at its first use, simulate some test moves to detect the controls and the main functions.

– Check that the nuts and screws securing all main parts are tight.

– Carry out a frequent trimming of the lawn to avoid an excessive growing of the grass.

– Do not use the robot to trim grass higher than 10 cm.

– If the lawn is equipped with an automatic irrigation system, programme the robot so that it re-enters the recharging station at least 1 hour before the start of irrigation.

– Check the ground gradient and make sure that it does not exceed the maximum values allowed so that the use of the robot does not cause dangers.

C141501800.fm

– The lawn mower should be programmed in order to prevent it from working more than necessary; always consider the different growth of the grass according to the season in order to avoid a useless wear of the lawn mower and a decrease in the battery life.

– When the robot is on, to avoid dangerous situations, make sure there is no one (in particular children, the elderly or disabled people) or pets in the area it will be operating in. To avoid this risk, we recommend programming the activity of the robot to be executed at suitable times.

– The robot can operate for 6 hours with 2 lithium batteries and every hour it can mow roughly 350÷400 m2 of lawn. Therefore, we recommend programming the lawnmower so the work times are never longer than the maximum duration of the batteries.

– When you set the work time, always leave at least 4 hours between one mowing cycle and the next so the robot can recharge its batteries.

ORDINARY MAINTENANCE

MAINTENANCE REMINDERS

Important

– During maintenance operations, use the individual protections indicated by the Manufacturer, especially when intervening on the blade.

– Before performing maintenance operations, make sure that the robot has stopped in safety conditions (See "Robot safety stop").

PROGRAMMED MAINTENANCE INTERVALS CHART

Frequency	*Component*	*Type of operation*	*Reference*
Every week	Blade	Clean and check the efficiency of the blade	See "Robot cleaning"
		If the blade is bent due to an impact or if it is worn-out, replace it.	See "Replace the blade"

C14150180O.fm

Frequency	Component	Type of operation	Reference
Every week	Battery recharge knobs	Clean and remove any oxidations	See "Robot cleaning"
	Contact plates	Clean and remove any oxidations	See "Robot cleaning"
Every month	Robot	Carry out cleaning	See "Robot cleaning"

GB

ROBOT CLEANING

1 – Stop the robot in safety conditions (See "Robot safety stop").

Important

If the antitheft alarm is enabled, disable it before lifting the robot (See "SETTINGS" – programming mode").

2 – Clean all the outside surfaces of the robot with a sponge soaked in warm water and neutral soap and rinse properly.

3 – Do not use solvents or benzine so not to damage the varnished surfaces and the plastic components.

4 – Do not wash the inside parts of the robot and do not use water jets in pressure so not to damage the electric and the electronic components.

Warning - Caution

In order not to irreversibly damage the electric and electronic components, do not plunge the robot, partially or completely in water, as it is not watertight.

5 – Check the lower part of the robot (cutting blade area and wheels) and remove the deposits and/or residues that might obstruct the correct functioning of the robot.

6 – To remove the deposits and/or other residues from the blade, use a suitable brush.

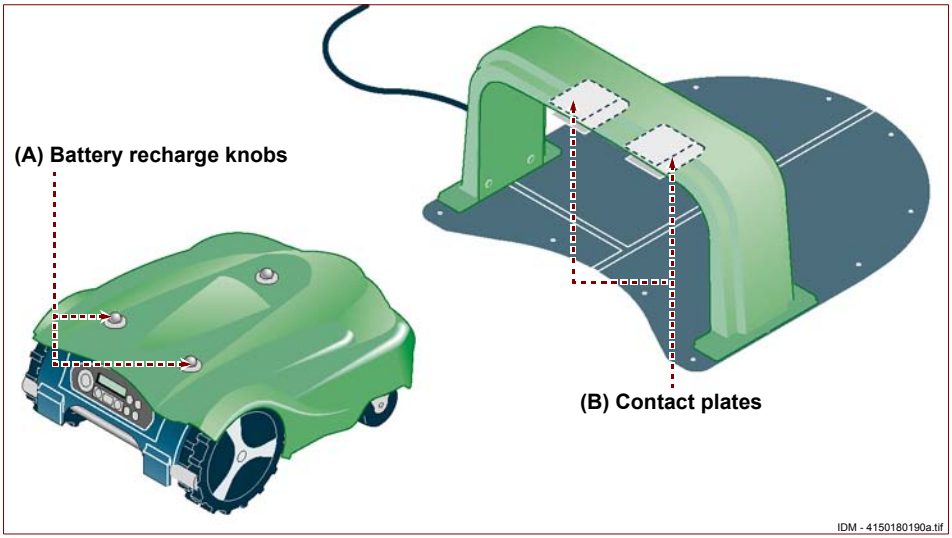
Warning - Caution

Use protection gloves to avoid the risk of cuts on hands.

C141501800.fm

7 – Clean the batteries recharging knobs **(A)**, contact plates **(B)** and eliminate any oxidation or residues due to electrical contacts with a dry cloth and, if necessary, with fine grain abrasive paper.

8 – Clean the interior of the recharging station from any accumulated residues.



GB

FAILURES, CAUSES AND SOLUTIONS

TROUBLESHOOTING

The information provided below is intended to assist in the identification and correction of any anomalies and malfunctions which might occur during use.

Some failures may be resolved by the user; others require precise technical skills or special abilities and must be exclusively resolved by qualified personnel with certified experience, achieved in the specific intervention field.

	Problem	*Causes*	*Solutions*
	The antitheft alarm remains operative	Alarm activated	Deactivate the alarm (See "SETTINGS" – programming mode")
	Antitheft alarm does not work	Alarm deactivated	Activate the alarm (See "SETTINGS" – programming mode")

C141501800.fm

	Problem	Causes	Solutions
	The robot is very noisy	Damaged cutting blade	Replace the blade with a new one (See "Replace the blade")
		Cutting blade flooded by residues (tapes, ropes, plastic fragments, etc.).	Stop the robot in safety conditions Use protection gloves to avoid the risk of cuts on hands. Remove the flood cause from the blade.
		The start of the robot occurred with obstacles being too close (less than 1 m away) or in presence of unexpected obstacles (fallen branches, forgotten objects, etc.).	Stop the robot in safety conditions (See "Robot safety stop")
			Remove the obstacles and restart the robot (See "Manual startup and stop of robot (in closed areas)")
		Damaged electric motor	Get the motor repaired or replaced by the nearest authorized Assistance centre
		Grass too high	Increase the cutting height (See "Adjusting the cutting height")
			Carry out preliminary cutting of the area with a normal lawn mower
	The robot does not position itself correctly inside the recharging station	Erroneous position of the perimeter wire or recharging station power supply cable.	Check the conneciton of the recharging station (See "Installation of recharging station and transmitter-power supplier group")
		Ground subsidence near the recharging station	Position the recharging station on a flat and stable surface (See "Equipment installation planning")

	Problem	*Causes*	*Solutions*
	The robot behaves in an anomalous manner around the flower beds	Perimeter cable incorrectly placed	Relocate the perimeter wire correctly (anticlockwise direction) (See "Perimeter wire installation")
	The robot works at erroneous times	Wrong clock setting	Reset the robot clock (See "LANGUAGE AND DATE/ TIME FORMAT" – programming mode")
		Wrong work timetable setting	Reset the work timetable (See "TIME" – programming mode")
	The robot does not carry out rapid re-entry	Rapid re-entry not correctly set	Check the exact setting of the rapid re-entry (See "Setting for rapid robot re-entry into the recharging station")

GB

C141501800.fm

	Problem	Causes	Solutions
	The working area is not completely trimmed	Insufficient work hours	Extend the work timetable (See "TIME" – programming mode")
		Cutting blade with deposits and/or residues	Stop the robot in safety conditions (See "Robot safety stop") Use protection gloves to avoid the risk of cuts on hands. Clean the cutting blade
		Cutting blade worn out	Replace the blade with an original spare part (See "Replace the blade")
		Working area too big compared to the actual capacity of the robot	Ad just the working area (See "Technical data")
		Batteries are about to deplete their life cycle	Replace the batteries with original spare part (See "Batteries replacement")
		The batteries do not recharge completely	Clean and eliminate any oxidation from the batteries contact points (See "Robot cleaning") Recharge the batteries for at least 12 hours
	Secondary area not completely mown	Wrong programming	Correctly programme the secondary area (See "SECONDARY AREAS" – programming mode")
	On the display "No Signal" appears	The perimeter wire is not correctly connected (broken wire, lack of electric connection, etc.)	Check the functionality of the electricity supply, correct connection of the transmitter-power supply group and that of the recharging station (See "Installation of recharging station and transmitter-power supplier group").

	Problem	Causes	Solutions
	On the display "Off Perimeter" appears	Excessive ground slope	Mark the area with excessive gradient (See "Equipment installation planning")
		Perimeter cable incorrectly placed	Check that the wire is installed properly (too deep, close to metal objects, distance between the wire that marks two elements less than 70 cm, etc.) (See "Equipment installation planning").
		Perimeter wire marking inside areas (beds, bushes, etc.) placed clockwise	Relocate the perimeter wire correctly (anticlockwise direction) (See "Perimeter wire installation")
		Overheated power supply unit	Adopt suitable solutions to reduce the temperature of the power supply unit (air or change the installation area, etc.) (See "Equipment installation planning").
		The wheel drive is not correct	Check and, if necessary, correctly fasten the wheels
	On the display "Blackout" appears	Power supply break to the transmitter	Restart the robot
		Overheated power supply unit	Adopt suitable solutions to reduce the temperature of the power supply unit (air or change the installation area, etc.) (See "Equipment installation planning").
		Presence of other nearby installations	Contact an Assistance Centre authorized by the Manufacturer

GB

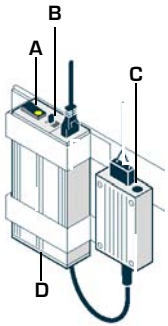
C141501800.fm

	Problem	*Causes*	*Solutions*
	On the display "Wheel motor error" appears	Rough ground or with obstacles that hinder movement.	Check that the lawn to trim is even, and without pits, stones or other obstacles. If so, perform the necessary clearance operations (See "Preparation and delimitation of work areas (main and secondary)").
		One or both motors, starting the wheel transmission, in breakdown	Get the motor repaired or replaced by the nearest authorized Assistance centre.
	On the display "Bump Error" appears	The shock sensors are blocked	Remove the hood and check that the sensors are functioning
	On the display "Sync Error" appears	The robot receiver does not recognise the signal	Switch off the equipment and switch it on again If the problem persists, contact the assistance service

	Problem	Causes	Solutions
	On the display "Tall grass" appears	Damaged cutting blade	Replace the blade with a new one (See "Replace the blade")
		Cutting blade flooded by residues (tapes, ropes, plastic fragments, etc.)	Stop the robot in safety conditions (See "Robot safety stop") Use protection gloves to avoid the risk of cuts on hands. Remove the flood cause from the blade.
		The start of the robot occurred with obstacles being too close (less than 1 m away) or in presence of unexpected obstacles (fallen branches, forgotten objects, etc.).	Stop the robot in safety conditions (See "Robot safety stop")
			Remove the obstacles and restart the robot (See "Manual startup and stop of robot (in closed areas)")
		Damaged electric motor	Get the motor repaired or replaced by the nearest authorized Assistance centre.
		Grass too high	Increase the cutting height (See "Adjusting the cutting height") Carry out preliminary cutting of the area with a normal lawn mower
	After installation of the robot, disturbances are noticed relative to domestic appliances (radio, television, electric gates etc.).	Interference with other electrical devices	Contact an Assistance Centre authorized by the Manufacturer

GB

C141501800.fm

	Problem	Causes	Solutions
	The led **(D)** of the power supply unit does not turn on.	There is no power voltage	Check that the position of the cursor **(B)** matches with the power voltage and that the push button **(A)** is on **"ON"**.
			Check that the power supply unit is correctly connected to the power socket.
		Blown fuse	Get the fuse replaced by the nearest authorized Assistance centre.
	The led **(C)** (green) of the transmitter is on.	Interrupted perimeter wire	Stop the robot in safety conditions (See "Robot safety stop") Press the button **(A)** of the power supply unit on **"OFF"**. Carry out the joint of the perimeter wire.
	The led **(C)** (orange) of the transmitter turns on repeatedly with consecutive flashes (less than 4).	Perimeter wire too long.	Install the signal amplification kit
		Perimeter wire damaged or oxidized	Check any joints. if necessary, replace the wire.
	The led **(C)** (red) of the transmitter is on.	Connections not performed correctly.	Get the check carried out by the nearest authorized Assistance centre.

PARTS REPLACEMENT REMINDERS

Important

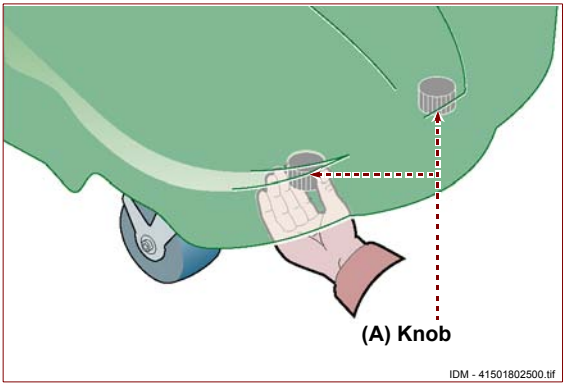
Always replace and repair the parts in compliance with the Manufacturer's instructions, otherwise contact the Assistance Service if these operations are not described in the manual.

BATTERIES REPLACEMENT

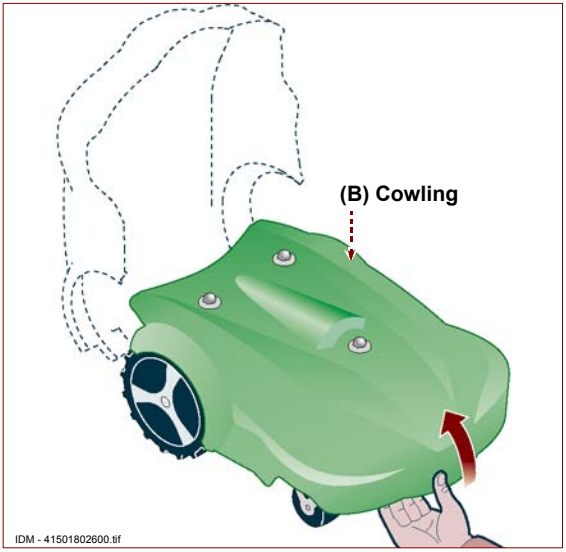
GB

1 – Stop the robot in safety conditions (See "Robot safety stop").

2 – Undo the knobs **(A)**.

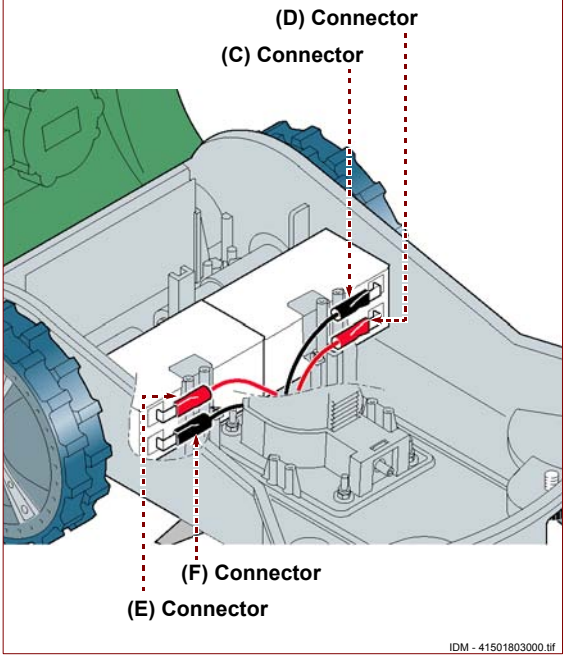


3 – Lower the hood **(B)**.

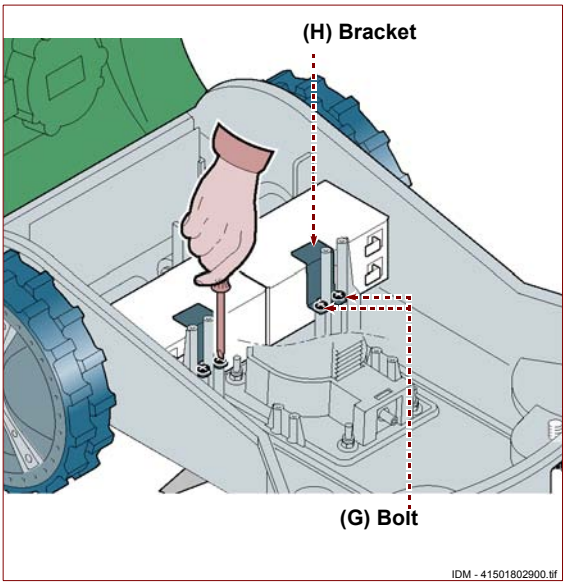


C141501800.fm

4 – Disconnect the cables in sequence **(C-D-E-F)**.



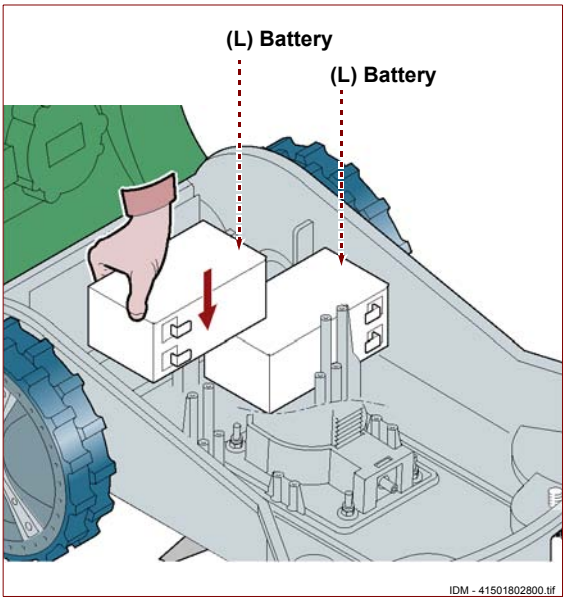
5 – Undo the screws **(G)** and remove the brackets **(H)**.



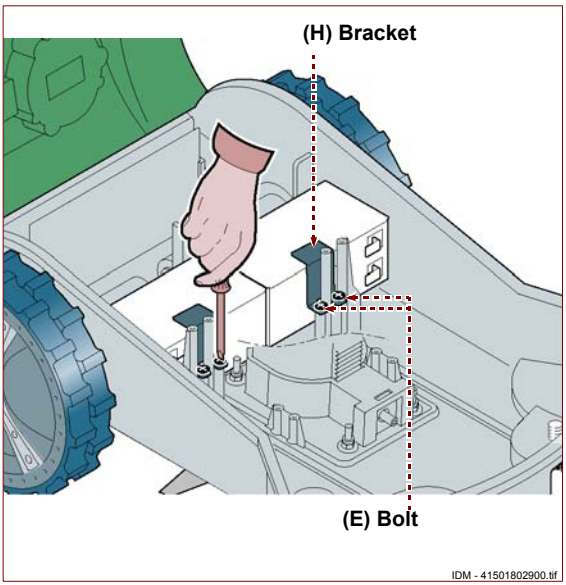
6 – Remove the batteries **(L)** and change them.

Important

Do not dump used batteries. Spent batteries must be disposed of in accordance with current statutory regulations.



7 – Assemble brackets **(H)** and fix them with screws **(E)**.



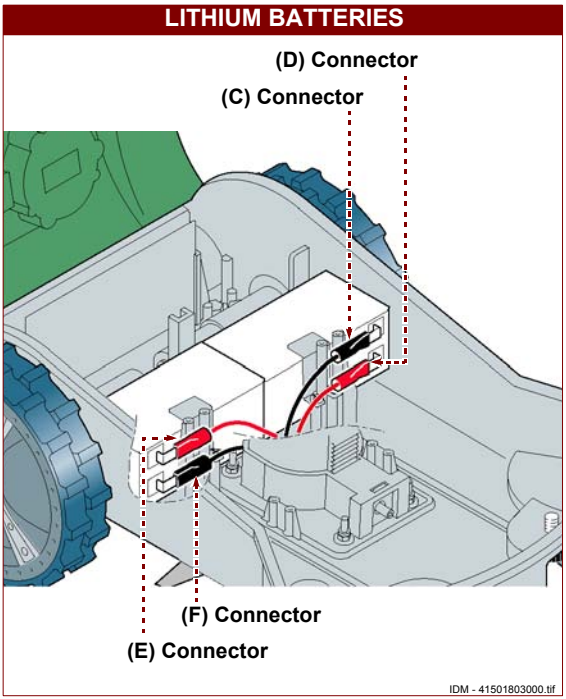
GB

C141501800.fm

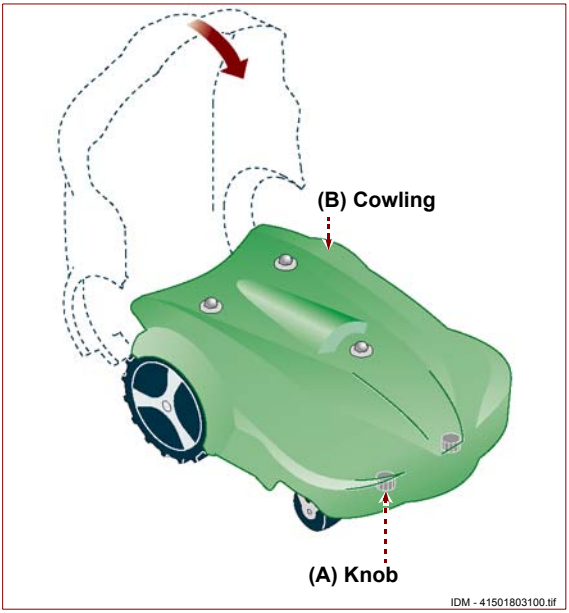
Lithium battery connection

1 – Connect the black connector**(C-F)** with negative polarity (-) and the red connector **(D-E)** with positive polarity (+) to the corresponding knobs.

On completing the batteries connections proceed as indicated.



2 – Lower the hood **(B)**.
3 – Tighten the knobs **(A)**.
4 – Position the robot inside the recharging station.
5 – Carry out battery recharge.
At this point, the robot is ready to use (See "Use and functioning").



GB

C141501800.fm

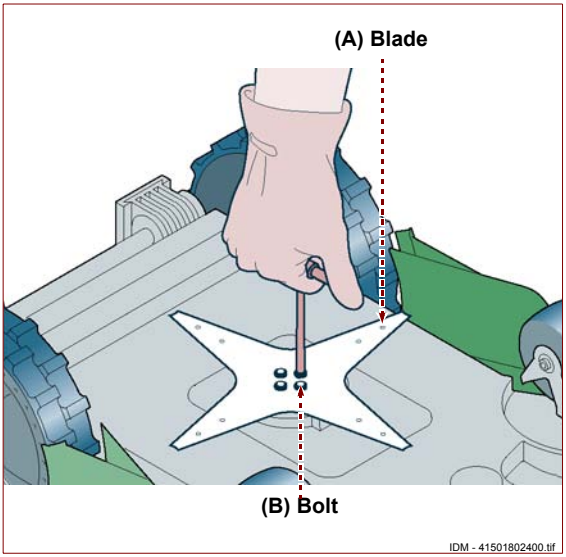
REPLACE THE BLADE

1 – Stop the robot in safety conditions (See "Robot safety stop").
2 – Turn the robot upside down and put it down so not to ruin the covering hood.
3 – Remove the screws **(B)** to remove the blade **(A)**.

Important

Use protection gloves to avoid the risk of cuts on hands.

4 – Insert the new blade and fasten screws.
5 – Adjust the cutting height (See "Adjusting the cutting height").
6 – Capsize the robot in its functioning position.



GB

ROBOT DISPOSAL

Danger - Attention

Do not dispose of pollutant materials in the environment. Dispose of all such materials in compliance with applicable legislation.

C141501800.fm